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ABSTRACT

A project was conducted to determine formal and informal competencies based on an expanded definition of workplace environmental literacy. A secondary goal was to develop a compact between employers and training program graduates whereby graduates would have preferential access to employment opportunities. Issues that arose during the implementation of the project were the inadequacy of the calendar portion of the plan of work; the need for continued advisory committee participation; initiation of a new integrated model for the development of workplace environmental literacy competencies; development of a process for auditing the workplace environmental literacy of organizations; assessment through use of a measure of perception of employer expectations rather than through observation of competence; limited number of participants; and impossibility of development of a compact policy priority access and preferential hiring. (Following the 17-page narrative report are extensive attachments, including the Workplace Environmental Literacy Project Plan of Work; quarterly reports; advisory committee information; a bibliography of 14 references; literacy audit documents and completed sample; competency statements by quadrant area; sample employer validation chart; list of competencies for electronic assemblers; participant perception assessment instrument; and behavioral observation checklist assessment instrument.) (YLB)

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WORKPLACE ENVIRONMENTAL LITERACY PROJECT (WELP)

FINAL REPORT

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OCTOBER 3, 1990

Presented
to the
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Workplace Environmental Literacy Project (WELP)

Final Report

The Workplace Environmental Literacy Project (WELP) was funded by the State Job Training Coordinating Council (SJTCC) for the period October 1, 1989 through September 30, 1990. It was a workplace literacy program which had two primary features. First was the establishment of a thorough list of competencies, based on a expanded definition of workplace environmental literacy, and a competency-based assessment instrument. Second was the development of a compact between employers and participants in JTPA training programs for electronics assembly who had received certification of assessed competence. Upon certification of assessed competence in identified workplace environmental literacy areas, participants would be eligible for participation in the compact program The interactivity within the project for developing the competencies and resultant assessment instruments was the critical phase of the entire process. In the absence of these competencies and the measured skills of participants in the program, the presence of a compact which assured preferential access priority hiring was a moot issue. This report is comprised of a narrative reviewing issues not discussed in quarterly reports, evaluation, and a project summary.

This WELP Project Final Report addresses issues which arose during the implementation of the project. This issues are:

- Calendar
- Advisory Committee
- Project Processes and Procedures
- Assessment
- Training Programs
- Compact Agreements

Attachments are included to provide documentation, examples of project forms, and samples of working documents. In addition, sample research data derived from the project is attached.

Calendar

The WELP program was based on a Plan of Work developed in September 1989 and predicated on assumptions and the environment which existed at that time. One of the major issues which arose out of the project was the inadequacy of the calendar portion of the Plan of Work (Attachment A: Plan of Work). The calendar for accomplishing the activities, which met the objectives and achieved the goals of the project, was incongruous with training calendars. The result was the period of time required for the development of the Advisory Committee and the implementation of the competency development process limited the opportunity for the assessment of JTPA participants and eliminated the opportunity for curriculum and training adjustment to reflect workplace environmental

literacy competency deficiencies and variances identified during the assessment process. It is clear that in future projects, a calendar based on relative importance of objectives, such as assessment and training, must be developed and implemented. It cannot be assumed that there will be an equal division of activities and objectives or goals through each of the quarters of the project. It is more likely, for projects which impact training programs and students, there will be periods of high activity and periods of lower activity. During the periods of high activity focus must be on client-centered services. During the periods of lower activity, focus should be on record keeping, data analysis, etc. Project directors and monitors should be alerted so their expectation for continuous levels of equal activity will not raise alarm. When projects are administered based on the perception of activities as calendarized events, the impact of that perception on the effective and efficient management and implementation of the project is more likely to be deleterious than beneficial. The Plan of Work itself, in terms of the goals and objectives, was an acceptable operational plan as indicated in routine reports of quarterly activities (Attachment B: Quarterly Reports).

Advisory Committee

The business and industry participants in the Advisory Committee were a critical ingredient in the project (Attachment C: Advisory Committee Members). The initial members of the business and industry Advisory Committee participated consistently throughout the process (Attachment D: Advisory Committee Roles and Responsibilities). Other members of the Advisory Committee, affected by external and economic environmental and

organizational issues, participated enthusiastically initially and then had to drop out of the project. However, both brought to the project important skills and experiences, and their input was invaluable. One example of the variance in participation of members of the Advisory Committee was a business and industry participant in the WELP project which, part way through the program year, was affected by a reduction in force and retreated from active participation so as to minimize the impact on an already shaken organizational culture. It is clear that the Advisory Committee must be carefully identified, closely monitored, and compassionately coached through the entire process. Quarterly meetings of the Advisory Committee for reporting purposes (Attachment E: Advisory Committee Calendar) are inadequate and may be meaningless. Meetings must be designed around times when interactive discussion among project participants is necessary. For example, although an initial Advisory Committee Calendar of seven meetings was established, only four meetings were actually held. If no interactive discussion is required, then direct contact by project team should be limited to levels sufficient to ensure continued participation in the project. The most effective meeting format is between individuals or small teams. Priority access to employment information, as recommended by Advisory Committee members as an alternative to the compact, will be pursed as a policy for the Medical Employment Data, Information and Competencies (MEDIC) project. Feedback to partnership participants should include success stories and impact on training and at least two benefits to the company be identified. The first benefit is a clear definition of company

competencies which should be shared as a company-private document. The second benefit is is the impact on the company's input into the occupational competency database and the effect it has on training and on participants.

Process and Procedures

The Workplace Environmental Literacy Project (WELP) developed a new model and initiated a new integrated model for the development of workplace environmental literacy competencies using concepts developed and proposed early by Davis Consulting Services and reinforced in a variety of subsequent documents (Attachment F: Workplace Environmental Literacy - Quadrants). The first part of the model is a revised definition of literacy. In traditional educational definitions, literacy has meant the ability to understand symbolic language, usually as a formal, written communication. It usually includes, as part of basic skills, reading, writing, and computational skills. Recent history has shown that the suffix "literacy" has been affixed to a number of other competencies, probably the most prominent example of which is computer literacy. Workplace literacy as an emerging phrase is intended to include the competency to perform basic skills (reading, writing, and math) required in the workplace as opposed to those required in an academic environment. Even this definition is insufficient. The definition of workplace environmental literacy used in this project asserts that to be literate in the workplace the worker must be able to be able to "read", affectively and cognitively, the visible, invisible, formal, and informal languages of the organization. Therefore, workplace environmental literacy is divided

into eight skill categories. These categories are job specific skills, basic skills, preemployment skills, work maturity skills, communication skills, learning-to-learn skills, organizational effectiveness skills, and teamwork skills. As a result of possession of these competencies (i.e. being workplace literate) the employee has the capacity to be both flexible (to change jobs within the same organization or to adjust the changing of jobs within the same organization) and mobile (able to move between organizations). Seven of these characteristics (the only one being excluded being job specific skills) were identified as critical in the document "Workplace Basic Skills Employers Want" published jointly by the Department of Labor and the American Society for Training and Development (Attachment G: Bibliography).

The second feature of the WELP workplace environmental literacy project was the development of a process for auditing the workplace environmental literacy of organizations using the concepts of action research and structured research documents. This literacy audit for basic skills was recommended in the "Bottom Line". However, that literacy audit was focused on basic skills, as are the processes found in most workplace literacy project activities, research, and literature. Using the successful model of action research, a valid and reliable research methodology used effectively and efficiently by behavioral scientists, the literacy audit was modified to identify formal and informal literacy skills required of effective electronics assembly employees. A unique characteristic of the literacy audit is that it is conducted at multiple levels - managers, supervisors and employees (Attachment H: Literacy

Audit Documents). This structured action research literacy audit document provides the framework for directing employees through the process of identifying competencies required by literate employees. A central hypothesis of the project was there would be a variance between the competencies of effective employees as perceived by managers, supervisors, and employees. A corollary was that in the competencies mutually expected by all three levels, the difference would be in terms of their perception of how the competency would be carried out. An example of this difference is in the Following Directions competency area. Managers listed "following directions", supervisors listed taking directions."

The interviewer notes detailed during the literacy audit (Attachment I: Sample Completed Literacy Audit) were then converted into informal competency statements (Attachment J: Informal Competency Statements by Quadrant Area). The competency statements followed the model for the development of measurable behavioral objectives, which included a statement of the skill, the level of attainment, and the method of measurement. This informal competency list was then verified with both the company and the Advisory Committee. The purpose of the verification process was to ensure that the competency said what the individual interviewed intended to say. Upon verification of the competencies, the informal statements were converted into formal statements. These formal statements, which had, until that point, been segregated by their area of definition were then randomly sorted, on the advise of the Advisory Committee, and taken back to the individuals with whom the

literacy audit had been conducted. The formal competence was again validated (Attachment K: Sample Employer Validation Chart). Operating on the assumption that competent employees would be able to do the job to the level required, the frequency with which they were able to accomplish the task was used as the standard for competence. The validated competency items were returned, synthesized (Sample L: Validated Competencies Graphed by Literacy Quadrant Distribution), and reported to the Advisory Committee. These competencies were then subsumed into a set of 1119 occupational competencies (Attachment M: Competencies - Electronics Assembler).

The next step in the project model was the translation of the competencies into an assessment instrument (see Assessment section of Narrative). A comparison of JTPA training program participant expectations of perceptions of employer expectations was used. An initial hypothesis of the project was organizational effectiveness and teamwork would be more important to employers than traditionally identified academic basic skills. A sample of the data which has emerged from WELP supports that hypothesis. Of the 119 competencies in the WELP project, a ratio of 3 organizational effectiveness and teamwork skills was identified for one basic skills competency. This 3 to 1 ration is indicative of the expectation of employers, especially managers, supervisors, and effective employees.

The impact of these workplace environmental literacy competencies on training has not been determined. The purpose of the project was to develop competencies, an assessment instrument, and to seek a method of

demonstrating variance. No training was included in the project. It is clear that there is important information to be shared with training service providers in regard to those areas of curriculum where current curriculum should be strengthened and emphasized, and where areas of competency expected by employers should be added. These competencies clearly indicate occupational, career vocational, occupation educational, employment and training programs, must focus on competencies that will improve the competitiveness and productivity of business and industry through the provision of flexible and mobile employees.

Assessment

Assessment was an area in which results were both positive and negative. The positive experience was that preassessment was conducted with participants in training programs and the variance between their expectations and employers' competencies and real expectations of employers for competencies were identified. There were, however, two negative events in assessment. The first element was the use of an assessment instrument which was used was a measurement of perception of employer expectations using the final, formal competency statements coupled with the scale used for employer validation (Attachment N: Participant Perception Assessment Instrument), rather than an observation of competence. The assessment instrument designed initially developed is a behavior observation checklist used in the classroom (Attachment O: Behavioral Observation Checklist Assessment Instrument). Because of the time limitations listed above, this tool could not be used. The second negative element was that only preassessment was able to be

conducted. A target of 25 JTPA participants was established for the project (See Issue: Training Programs). Atotal of 25 electronics assembly training program participants have been preassessed (100%). Of these 23 (92% of plan and of total preassessments) have been JTPA participants. The accomplishment of preassessment allowed for development of information which showed variances between student expectation and employer requirements, but no transference of variance was available to training, curriculum or instruction so that variance could be reduced and employability could be enhanced. The time limitations in conducted preassessment meant no postassessment could be conducted. Postassessment conducted without intervening training activities would have been a deleterious use of an assessment instrument because no training had occurred for which post assessment could show a difference between assessed posttraining skills and preassessment skills.

Training Programs

Only one training program, the Center for Employment Training (CET) of Orange County, was providing electronics assembly training. This meant the number of available participants in WELP was limited to those active in CET training. This limitation was extended by the time limitations noted in the calendar comments above. CET was enthusiastic an supportive of the project. The nature of the organization and its clients meant the preassessment, designed in English, was conducted in Spanish. This language difficulty was overcome through the cooperation of the CET staff and illustrates the flexibility of the instruments. It also raises the issue of providing project documents in appropriate language formats.

The primary issue to be considered is the limitations placed on project quantitative goals by the active participation of a single training provider. No matter how cooperative the single agency may be, future projects should endeavor to ensure multiple training provider resources to achieve project goals.

Compact Agreements

As a major feature of Workplace Environmental Literacy Project (WELP), a compact policy priority access and preferential hiring was to be developed. During the course of the project, business and industry partners made it clear that a contractual relationship for such compact activities would not be achievable (see Attachment B [WELP Third Quarter Report]). This position was primarily due to issues of organizational process and culture, rather than a reluctance to actively seek potential employees from participating training programs. This was particularly true of major corporation business and industry partners. As a result, no priority access hiring compact was developed. At the suggestion of project partners, a process for preferential access to employment information has been considered. The compact concept originally included in the project was set aside by the Advisory Committee. At their suggestions and recommendation, a concept for Priority Access to Employment Information was substituted. This Priority Access to Employment Information will be incorporated into subsequent models. Priority Access to Employment Information simply means that employers interfaced with training programs, recognizing the levels of competency, and the competence and skills developed in the training program, will,

through a variety of mechanisms, provide early information for employment opportunities. The range of technologies used in the provision of this information varies. An alternative would be an electronic mail system. Another alternative would be the FAXing of employment opportunity information. Another alternative a mailing of employment opportunity information. The alternative selected would be determined by the capacity of the training service provider to receive the information, a well as the company to send the information. This concept serves as the cornerstone of the refunded SECG 30% project for 1990-91 - Medical Employment Data, Information and Competencies (MEDIC). In addition, priority access to employment information will be pursed as a policy for the MEDIC.

Evaluation

WELP Proposal Evaluation

The WELP outcome evaluation plan is based on the use of project management techniques and technology for the development, initiation, collection, analysis, and reporting of data. While the outcome evaluation is predicated on the assumption of effective planning, it is sensitive to dependence on initial conditions and the impact on outcomes on the progressive effect of variance in activities. One example of this characteristic was the impact of with the project calendar. Initial conditions as outlined in the proposal were modified to meet the needs at the time the funded project began. The impact on outcomes (e.g. post

assessment) was the result of the progressive effect of variance to these initial, sensitive conditions

I. Outcome evaluations of the plan include:

- A comparison of actual versus planned activities, responsibilities, timelines and resources using evaluation checklists, comparative workplans and project reports
  - See Attachment B (Quarterly Reports).
  - Attachment P (Variance Comparing Industry Standard to Participant Average).
- Measurement of resource and time variances
  - See Attachment P.
  - Resources, with the exception of the issues raised in the discussion of the Advisory Committee issues above, were sufficient for the successful completion of the project.
- Evaluation of actual activities to determine the realistic, feasible nature of the original workplan

  See Attachment B. The Quarterly Reports illustrate the original workplace, except for calendar issues was both realistic and feasible.

II. Outcome of evaluations of the participants include:

- Pretest of competency levels
  - See Attachment P.
  - 100% of the students responses on the competencies needed in the workplace varied over 80% of the time by more than .75

from the averaged validated competencies (the standard) of the participating companies.

- Post-test of competency levels

  No posttests of competency levels were conducted. Please refer to the Calendar issue discussed above and see Attachment B.

- Participant involvement in the EEDP Development

  See Attachment B. Pretest data was not available to training programs for participant involvement in EEDP development or modification

- Sufficiency and clarity of documentation

  The WELP project documentation was both sufficient and clear for the activities conducted and completed.

- Employment outcomes

  As discussed in the Compact issue section above, no employment outcomes resulted.

III. Outcome evaluations of the WELP partnership will include:

- Level of participation in planning

  See Attachment B

- Extent and effectiveness of linkages

  See Attachment B

- Extent and effectiveness of coordination

  See Attachment B and the Advisory Committee section above.

IV. Outcome evaluations of the WELP program will include:

- Achievement of program objectives/threshold indicators

  All threshold indicators were met. Only the compact objective of the project was not met (Attachment B and Compact issue section).
- Extent to which identified needs were met (using a Likert scaled tool).

  See Attachment Q (Project Evaluation).
- Extent to which the Eight Components of a Successful Program, and their subparts, were met (using a Likert scaled tool).

  See Attachment Q.
- A comparison of planned versus actual implementation, including variances, modifications, and their causes

  See Attachment B.
- Impact on training programs, including linkages and coordination

  See Attachment B.
- Level of complimentary interface with the SDA, and other local JTPA activities.

  See Attachment B.
- Overall effectiveness of the WELP project (using a Likert scaled tool)

  See Attachment Q.
- Follow-up of participant outcomes, using employer contacts based on preferential access and priority hiring

  See Attachment B.

WELP Workplan Evaluation

The WELP project workplan was adequately constructed in terms of its goals, objectives, and activities. The workplan was inadequate in its estimated start and completion data. As reviewed in the Calendar section of the narrative, the dependency of activities to start, continue, or be completed on a given date was sensitively dependent on the resources available to to the project management team. The project was dependent on activities being accomplished during a period when the team was being formed and formalized. These tasks then "slipped." That slippage the affected the implementation and completion of the "slipped" task, as well as subsequent tasks which were dependent on the initial task. This sensitive dependence on initial conditions of interdependent tasks requiring resources which might be unavailable had a geometric effect on the timely accomplishment of project tasks. Future projects should consider the probability of completing activities during the period beginning the Monday preceding the Thanksgiving Holiday through January 2 of the following year. Thic is a period in which task oriented behaviors are often thwarted by the holiday calendar, if not activities consistent with the spirit of the season but not supportive of the project calendar.

Summary

The Workplace Environmental Literacy Project (WELP) project was clearly successful. It exceeded expectations for the workplace environmental literacy audit process and procedures for determination of formal and informal competencies expected by business and industry at

multiple organizational levels. It heightened, within the scope of the project, the awareness of an emerging definition of workplace literacy which goes beyond traditional basic skills concepts. It demonstrated employers expectations for affective (organizational effectiveness and teamwork) were greater than those for cognitive skills (reading and math). It demonstrated employers were willing, within the constraints of economic and other external pressures, to enthusiastically participate in the process. It illustrated the effectiveness of an action research model and its capacity to develop information useful to companies, training agencies, and participants (Attachment R: Sample Data Derived from the Project).

The WELP Project was unsuccessful in the development of a compact document which linked competent training program graduates to preferential access to employment opportunities. It clearly demonstrated the deficiency of quarterly, chronologically driven, planning. It indicated the need to carefully monitor and mentor all participants in the project.

Taken as a whole, the project was very successful. In the future, workplace literacy will be understood as more than reading and math. Companies and training agencies will be able to develop locally specific competencies for use in training and to improve business and industry effectiveness and efficiency, thereby positively impacting productivity and competitiveness.

Workplace Environmental Literacy Project (WELP)

Attachment A

Plan of Work

Plan of Work

Workplace Environmental Literacy Project

GOAL 1: October 16 - November 10, 1989

To establish contacts which will be used in the selection of an Advisory Committee consisting of a minimum of 7 representatives from business and industry and participating agencies.

ACTIVITIES

1.1 Identify JTPA training programs in electronics assembly.

1.2 Review existing Advisory Committee in identified programs

1.3 Determine participating companies and responsible individuals.

1.4 Establish a calendar of Advisory Committee activities.

1.5 Identify participating companies.

1.6 Meet with selected individuals to review project and ensure commitment.

1.7 Submit quarterly report of program status.

GOAL 2: November 11, 1989 - February 9, 1990

To establish Advisory Committee in order to develop and validate local company-based job specific competencies and construct a pre/post test.

ACTIVITIES

2.1 Select program Advisory Committee from business and industry cosponsors and JTPA training programs.

2.2 Review Workplace Environmental Literacy Project with Advisory Committee.

2.3 Establish Advisory Committee policy and procedures in quantifiable objectives.

2.4 Develop, implement and maintain an effective reporting and monitoring system of program status.

2.5 Review available local and national competencies in project area(s).

2.6 List and define the recommended company/job specific competencies.

2.7 Identify and list competencies for each company/job using employee input.

2.8 Field test competencies using effective employees identified by each company.

2.9 Validate competencies using effective employees identified by each company.

2.10 Determine company/job specific competency levels of effective employees to form effective employee profile.

2.11 Recommend company/job specific competencies.

2.12 Report results to company and Advisory Committee.

2.13 Modify competencies list, establish competency levels.

2.14 Develop assessment item bank for competencies using quantifiable and measurable statements.

2.15 Develop company/job specific competency pre and post-tests.

2.16 Develop, coordinate and maintain effective linkages with selected LEA's, and SDA's, training programs, agencies, companies and business and industry groups.

2.17 Provide project related training.

2.18 Submit quarterly report of program status.

GOAL 3: February 10 - May 4, 1990

Begin pretesting a minimum of 25 JTPA clients in participating electrical occupation programs, and establish preferential access/priority hiring locations with a minimum of 80% of the Industry Advisory Committee members.

ACTIVITIES

3.1 Administer pretest to selected JTPA participants.

3.2 Report pretest outcomes to project participants and recommend EDP and training modification, as required.

3.3 Begin administering post-test to pretested JTPA participants and certify those achieving identified competencies.

3.4 Report post-test outcomes to project participants and recommend additional training modifications as required.

3.5 Determine, with Advisory Committee, issues related to preferential access/priority hiring of successful JTPA participants.

3.6 Draft preferential access/priority hiring policy.

3.7 Submit draft policy to Advisory Committee for review and comment.

3.8 Revise policy based on review and comments.

3.9 Submit final policy to Advisory Committee for approval.

3.10 Disseminate policy to project participants.

3.11 Monitor status of access of JTPA participants based on policy.

3.12 Submit quarterly report of program status.

GOAL 4: May 1 - September 27, 1990

To compile and analyze program outcomes in order to develop a final project report by June 30, 1990.

ACTIVITIES

4.1 Develop, implement, and maintain JTPA participants pretest, progress, post-test and outcome data.

4.2 Develop quantitative analysis of implementation, outcomes, and effectiveness of project activities, including a comparison of planned vs. actual results.

4.3 Draft project report for Advisory Committee and establish demonstration site.

4.4 Develop and submit final project report.

4.5 Report status of policy implementation to project participants.

4.6 Disseminate final project report to project participants, SDA, LEA's, State Department of Education, California Community College Chancellor's Office, VOICE, ERIC.

4.7 Presentations at appropriate meetings including California Vocational Education Conference.

Workplace Environmental Literacy Project (WELP)

Attachment B

Quarterly Reports

WORKPLACE ENVIRONMENTAL LITERACY PROJECT

First Quarter Report

October 10 - November 10, 1989

GOAL 1

To establish contacts which will be used in the selection of an Advisory Committee consisting of a minimum of 7 representatives from business and industry and participating agencies.

Activities

1.1 Identify JTPA training programs in electronics assembly.

Two JTPA training service providers, Practical Schools and C.E.T., have been identified. C.E.T trains JTPA participants in electronics assembly. Practical Schools trains JTPA participants in electronics, including computer repair.

1.2 Review existing Advisory Committees in identified programs.

The existing electronics Advisory Committees for the NOCCCD and NOCROP have been reviewed and included in planning.

1.3 Determine participating companies and responsible individuals.

Using existing NOCCCD and NOCROP lists and a survey of electronics assembly companies, a list of 81 potential participants in the Workplace Environmental Literacy Program Advisory Committee was determined. Responsible individuals have been notified of the initial activities in the WELP calendar.

1.4 Establish a calendar of Advisory Committee activities.

Based on the program flowchart, established quarterly goals and objectives, and LEA calendars, as well as the need to complete twelve months of activity in nine months, a calendar of activities for the WELP program and Advisory Committee has been established.

1.5 Identify participating companies.

See 1.3

1.6 Meet with selected individuals to review project and ensure commitment.

The WELP project has been reviewed with appropriate LEA and service provider staff to ensure commitment to the goals and objectives of the project.

1.7 Submit quarterly report of program status.

The report of the First Quarter's activities for the Workplace Literacy Project is listed above.

WORKPLACE ENVIRONMENTAL LITERACY PROJECT

Second Quarter Report

November 11, 1990 - February 9, 1991

GOAL 2

To establish Advisory Committee in order to develop and validate local company-based job specific competencies and construct a pre/post test.

WELP project staff, based on the level of available resources during the holiday period, the termination date for Quarter 2 would be modified to February 9, 1990.

Activities

2.1 Select program Advisory Committee from business and industry cosponsors and JTPA training programs.

Programs were identified and selected from vocational training programs offered by both NOCCCD and NOCROP. Existing advisory committee lists were obtained, reviewed for the identified and selected training programs, and members served as one component in the development of the WELP Advisory Committee. Advisory committee lists were combined with the identification of appropriate local business and industry to serve as the basis for a general PACE notification letter. Two letters were developed. The first was notification of LEA participants. The second was notification of business and industry participants. WELP committee participants were selected from business and industry and JTPA training programs. The identification of those companies who will be willing to commit to active participation in the identified project activities was a critical issue in the development of the WELP Advisory Committee.

2.2 Review Workplace Environmental Literacy Project (WELP) with Advisory Committee.

Meetings have been held with selected LEA participants to review the WELP project and to ensure their commitment. Company responsible individuals were identified and letters of commitment were obtained from all participating Advisory Committee members. The WELP Project was reviewed with LEA participants on September 21, 1989. The WELP project was reviewed with business and industry participants.

2.3 Establish Advisory Committee policy and procedures in quantifiable objectives.

Advisory Committee initial Policies and Procedures have been established and provide quantifiable objectives. Policies and Procedures include:

- o Advisory Committee Composition
- o Advisory Committee Calendar
- o Advisory Committee Roles and Responsibilities
- o Project Reporting
- o Project Monitoring

2.4 Develop, implement and maintain an effective reporting and monitoring system of program status.

An effective system has been developed, implemented, and maintained for reporting and monitoring program status. This system is consistent with project policies and procedures, effective project management, and the goals and objectives of the WELP project. In addition to written reports, bimonthly coordination meetings are held with the LEA Project Director. In addition, Advisory Committee agenda's will include appropriate status reports.

2.5 Review available local and national competencies in project areas(s).

Available local and national competencies were collected and reviewed by project staff.

2.6 List and define the recommended company/job specific competencies.

Recommended company/job specific competencies were listed and defined in a list of competencies (Attachment A) based on the input of business and industry partners during on-site using workplace environmental literacy audits conducted by project staff. Recommended competencies were individually identified in a separate statement which focused on an activity performed at the level of an effective employee. Using a Competency Rating Scale (CRS - Attachment B), managers, supervisors, and employees responded on the basis of the frequency which the effective employee would accomplish the activity to company standards.

2.7 Identify and list competencies for each company/job using employee input.

See 2.6.

2.8 Field test competencies using effective employees identified by each company.

Recommended competencies were field tested using effective employees identified by participating business and industry project partners and the initial competency instrument was modified to ensure language facility and that items would not be identified by their WELP matrix category. Field testing included the use of the Competency Rating Scale (Attachment C).

2.9 Validate competencies using effective employees identified by each company.

The results of the input of managers, supervisors, and employees on the Competency Rating Scale (CRS) was used to validate the competence of effective employees on each of the competency statements. Validation was developed in two ways. First, the responses were tabulated and ranked by total frequency on the entire CRS. Second, each competency (item) was evaluated. The validation process established a level of frequency for effective employees.

2.10 Determine company/job specific competency levels of effective employees to form effective employee profile.

See Activities 2.6 and 2.9.

2.11 Recommend company/job specific competencies.

Company/job specific competencies were recommended on completion of Activity 2.10. The recommendation process was based on the input of company employees during the workplace environmental literacy audit and through the validation of the resultant competencies. Competencies, initially listed as an outcome of the interview process, may have been eliminated during the validation process based on company employees consistently responded "never" to a listed competency.

2.12 Report results to company and Advisory Committee.

See items 2.1 through 2.11 and Attachments.

WORKPLACE ENVIRONMENTAL LITERACY PROJECT

Third Quarter Report

February 10 - May 4, 1990

GOAL 3

Begin pretesting a minimum of 25 JTPA clients in participating electrical occupation programs, and establish preferential access/priority hiring locations with a minimum of 80% of the Industry Advisory Committee members.

Activities

3.1 Administer pretest to selected JTPA participants.

Pretests have been administered to JTPA participants enrolled in electronics assembly training at the Center for Employment Training (C.E.T.) . The project goal of 25 assessments was achieved. Of the 25, 23 were JTPA eligible participants (92%).

3.2 Report pretest outcomes to project participants and recommend EDP and training modifications, as required.

Pretest outcomes have been reported to JTPA training activities for ap propriate dissemination to participants. program. Due to this delay in administration of pretests, no posttests have been administered to pretested JTPA participants. Modifications to EDP's and training will be determined by trainers based on the degree of variance between each participant's outcomes and the results of the validation of the PACE competencies.

3.3 Begin administering post-test to pretested JTPA participant administration of pretests was delayed due to the absence of participants in the training cycle of the electronics assembly This event was anticipated. Posttesting will continue as an objective for consideration during the fourth period.

3.4 Report posttest outcomes to project participants and recommend additional training modifications, as required.

See 3.4. No posttests have been administered. Therefore, no outcomes have been reported.

3.5 Determine, with Advisory Committee, issues related to preferential access/priority hiring of successful JTPA participants.

See Attachment A. In the discussion of the issues related to preferential access/priority hiring of successful JTPA participants, both actively participating members of the Advisory Committee were adamant in their assertion that no employer would sign a compact agreement which committed them to either preferential access or priority hiring. However, it was strongly recommended the policy for the WELP compact be based on preferential access to employment opportunity information. The recommendations included the suggestion consideration be given to an electronic link between training agencies and employers so the access to such information would be immediate. Subsequent priority access/preferential hiring policy decisions are based on this recommendation.

3.6 Draft preferential access/priority hiring policy.

See 3.5.

3.7 Submit draft policy to Advisory Committee for review and comment.

See 3.5.

3.8 Revise policy based on review and comments.

See 3.5.

3.9 Submit final policy to Advisory Committee for approval.

See 3.5.

3.10 Disseminate policy to project participants.

See 3.5.

3.11 Monitor status of access of JTPA participants based on policy.

See 3.5.

3.12 Quarterly Report.

Detailed herein.

Attachment A (Preferential Access/Priority Hiring Issues)

Workplace Environmental Literacy Program (WELP)

Advisory Committee: Issues for Discussion

Development of a Policy for Preferential Access

- How to obtain company approval of the list of competencies resulting from the interviewing process?
- How to obtain certification of JTPA participants based on their attainment of levels of competence equal to that of effective employees?
- What process will be developed for developing access, based on certification of competence, to interviews for employment?
- What form should the preferential access agreement take (policy statement, agreement, policy statement with agreement, other)?
- What steps are required to obtain organizational approval and implementation of the preferential access process?

WORKPLACE ENVIRONMENTAL LITERACY PROJECT

Fourth Quarter Report

May 1 - September 27, 1990

GOAL 4

To compile and analyze program outcomes in order to develop a final project report by June 30, 1990.

Activities

4.1 Develop, implement, and maintain JTPA participant pretest, progress, posttest and outcome data.

Pretest and posttest outcome data are included in a data maintenance and reporting system. Preassessment outcomes have been reported for each participant. In addition, the variance between these outcomes and employer expectations are provided to give direction to trainers as to areas of emphasis for competency training. Samples of participant to employer expectation variance are included in the Final Report

4.2 Develop quantitative analysis of implementation, outcomes, and effectiveness of project activities, including a comparison of planned vs. actual results.

A quantitative analysis of implementation, outcomes, and effectiveness of project activities, including a comparison of planned vs. actual results has been conducted. While discussed more fully in the WELP Final Report, it is clear that actual timelines were at wide variance with plan timelines. This is, however, not inconsistent when it is understood the plan timelines

are based on assumptions developed during the proposal process which occurs several months prior to funding. A recommended alternative would be for would the start and finish dates to be amended, with the approval of the program monitor, during the contracting stage. This should reduce variance and reflect more accurately what can be done at the time the contract is initiated (See Final Report).

4.3 Draft project report for Advisory Committee and establish demonstration site.

See WELP Final Report. The Assessment and Career Center at the NOCCCD Yorba Linda Education Center has been established as the demonstration site for workplace environmental literacy projects.

4.4 Develop and submit final project report

See WELP Final Report, August 31, 1990.

4.5 Report status of policy implementation to project participants.

See Attachment A, Third Quarter Report. As a feature of the Workplace Environmental Literacy Project (WELP), a compact policy for priority access and preferential hiring was to be developed. During the course of the project, business and industry partners made it clear that a contractual relationship for such compact activities would not be achievable (see WELP Third Quarter Report). As a result, no priority access hiring compact was developed. At the suggestion of project partners, a process for preferential access to employment information has been considered. This concept serves as the cornerstone of the refunded SECG 30% project for 1990-91 - Medical Employment Information and Competencies (MEDIC). In addition, priority access to employment information will be pursed as a policy for MEDIC.

4.6 Disseminate final project report to project participants, SDA's, LEA's, State Department of Education, California Community College Chancellor's Office, VOICE, and ERIC.

A copy of the final project report has been distributed to all project business and industry and education and training participants. In addition, copies will be supplied to the Chancellor's Office of the California Community Colleges and to the Employment and Training Network/VOICE. Finally, a copy will be submitted to ERIC.

4.7 Presentations at appropriate meetings, including California Vocational Education Conference.

The Workplace Environmental Literacy Project (WELP) workplace literacy project, along with its companion project Priority Access Compact with Employers (PACE), has been presented at the following conferences:

- California Vocational Education Conference - Anaheim, California
- California Community College Association of Occupational Educators - San Francisco, California
- National Employment and Training Association Conference - Virginia Beach, Virginia

Workplace Environmental Literacy Project (WELP)

Attachment C

Advisory Committee Members

Fernando Gallo, Division Director, Center for Employment Training of Orange County (CET)
Mar Lynn Sheehan, Practical Schools, Anaheim
Donna Johnson, Eaton Corporation, Costa Mesa
Bob McArthur, Interstate Electyronics Corp., Anaheim
Lori Watts, Hughes Aircraft - Ground Systems Group, Fullerton
Kay Turley, Administrator, North Orange County ROP
Jan Armstrong, R & R Industries, Brea
Robert Cumming, Director, Career and Assessment Center, NOCCCD
David S. Davis, Davis Consulting Services, Los Alamitos

Workplace Environmental Literacy Project (WELP)

Attachment D

Advisory Committee Role and Responsibilities

The Priority Access Compact with Employers (PACE) project is a new program which will provide a competitive advantage for employment to JTPA participants by identifying company based, job specific, competencies required by employers. Through the project, employers will define and validate competencies and give preferential access to certified program graduates. The preferential access/priority hiring compact will create a new partnership between the SDA, the LEAs, and business and industry. This interface will be guided by an Advisory Committee composed of companies who hire entry level clerical employees. The employers who compose the PACE Advisory Committee, aided by program

staff and student input, will develop employer and job specific competencies. The coordination and linkage of PACE services and resources will benefit from the guidance of the Advisory Committee. The PACE Advisory Committee will develop new linkages with these employers while simultaneously meeting JTPA participants' needs for a competitive advantage through preferential treatment and priority hiring.

The PACE compact program will use Advisory Committee guided company specific input to identify job specific competencies, transfer those competencies to JTPA programs, and measure participant's competency levels. Those participants meeting the prescribed competency levels will receive a "Certificate of Competency" from the Compact Partnership. Through the Advisory Committee, PACE will develop and coordinate new linkages between training programs, develop new and integrate existing competencies, establish program guidelines, develop enhancement of program services and provide job specific occupational information.

A summative report of implementation activities will be drafted, reviewed by the PACE partnership, and a final report will be developed which will be approved by the PACE Advisory Committee and disseminated to PACE participants.

Included in the responsibilities of the PACE Advisory Committee are:

- Advisory guidance to the co-applicants and project staff.
- Participation in the development of company specific competency lists based on the project format.
- Selection of effective employees for validation of selected competencies.
- Review and recommendations of the completed Competency Lists and Assessment Instruments.
- Determination and review of issues related to preferential access/priority hiring of successful JTPA participants.
- Adoption of policy for preferential access/priority hiring of successful JTPA participants.
- Review of PACE Project Final Report.

Workplace Environmental Literacy Project (WELP)

Attachment E

Advisory Committee Calendar

October 19, 1990

January 30, 1991

March 27, 1991

April 24, 1991

May 22, 1991

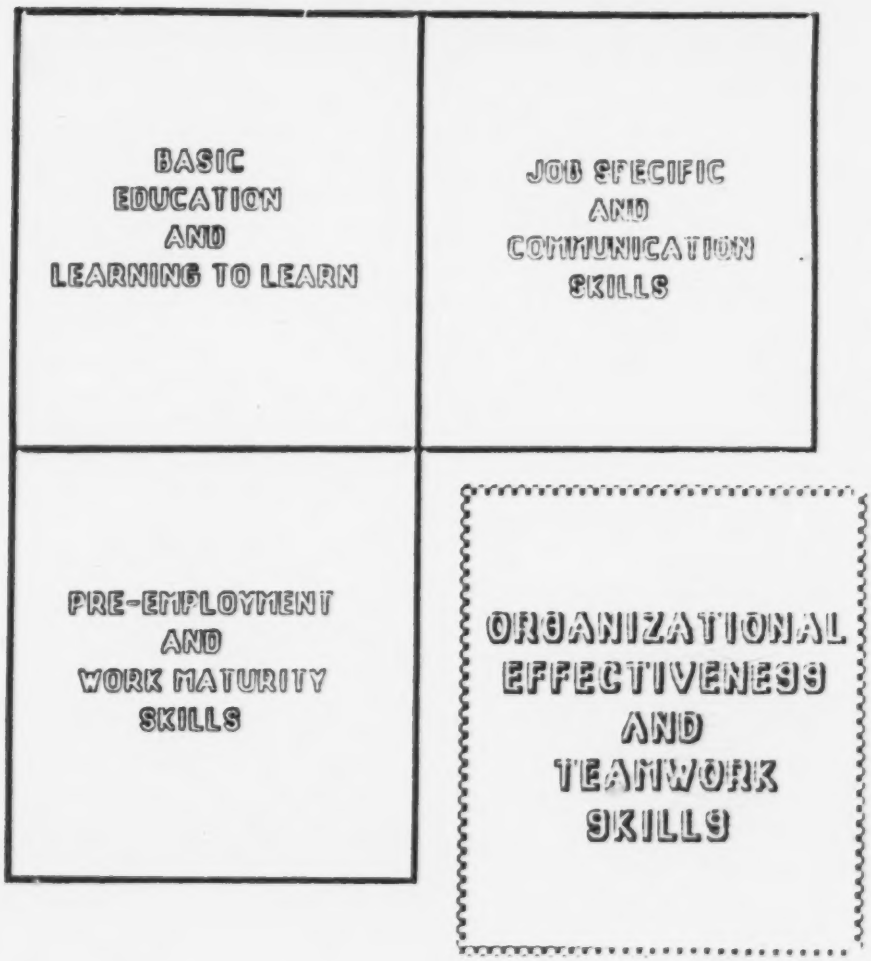
June 26, 1991

October 3, 1990

Workplace Environmentall Literacy Project (WELP)

Attachment F

Workplace Literacy Quadrants


BASIC EDUCATION AND LEARNING TO LEARN
JOB SPECIFIC AND COMMUNICATION SKILLS
PRE-EMPLOYMENT AND WORK MATURITY SKILLS
ORGANIZATIONAL EFFECTIVENESS AND TEAMWORK SKILLS

Attachment F
Workplace Literacy Quadrants

Workplace Environmental Literacy Project (WELP)

Attachment G

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Workplace Environmental Literacy Project (WELP)

Attachment H

Literacy Audit Documents

Interview Sheet

Employee Symbol_____ **M - S - E**

Date_____

Businesses by Catagory-Alphabatize within catagories and cross reference to Alphabetical listing-

___**Name of Company**_____**Div.**_____
Addresss **City** **Zip**
Telephone number(**)**_____
Contact person_____
Position_____
Ownership, Proprietorship, Partnership or Corp. _____
Products or
Services_____

Number of Employees _____
People Employed Categories in Division or Department

Position_____ No._____

Position_____ No._____

Position_____ No._____

Position_____ No._____

Open Ended Questions

A. What are the 5 major skills that you use as a _____?

1._____
2._____
3._____
4._____
5._____

B. What are the 5 intellectual skills you use as a _____?

1._____
2._____
3._____
4._____
5._____

C. What are the 5 most important relationship skills you use with fellow workers and supervisors?

1._____
2._____
3._____
4._____
5._____

D. What are 5 specific job skills that are most important to be an excellent_____?

1._____
2._____
3._____
4._____
5._____

E. Do the performance evaluations consider any of the above skills?
Yes_____No_____ How often?_____year

F. Do you use a written job description?
Yes_____No_____
Do you have a copy_____

G. What do you use company manuals to do? _____

_____

Do you use the Organizational chart?_____

_____

If you were to say in your own words, what would you say is the company's main purpose? _____

_____

_____

What is your role in the quality assurance or quality control program?

_____

_____

H. What key words are used _____ employees regarding the company's purpose:

1.
2.
3.
4.

I. What are your 3 most important roles as a_____ employees?

1.
2.
3.

J. How you see yourself fitting into the overall purpose of the company?

_____
_____
_____
_____
_____
_____
_____
_____
_____

K. How do you see this specific job related to getting other postions in the company?

_____
_____
_____
_____
_____
_____
_____

Thank You!

Signature: _____

Environment Questions

Where _____

_____ Where is the location of the activity in relation to the rest of the work?_____ Central?_____ Peripheral?

_____ What are the surroundings? _____ Is it easy to reach?

_____ Are there locked doors? _____ Fences? _____ No trespassing signs? _____ Visitor "Report to Office" signs? _____ Building guards? What puposes do they serve?

_____ What underlying assumptions do they suggest about the relationship between business and employees?_____What does it suggest about the relationships?

What?

_____ What are the architectural features of the building(s)?

_____What kind of activities does it seem to encourage?

_____What purposes do the architecture seem designed to serve?

_____What attitudes does it communicate about training/learning?

_____ What kinds of special facilities does the it have? _____ Are there rooms designed for specific purposes? _____ What puposes are they designed for? _____ What kinds of equipment for work? _____ Modern?

_____ What kinds of equipment for other purposes?

_____ Can you make any inferences abou the kinds of activities the business values most?

_____ What is the interior decoration like? _____ Is it clean? _____ bright? _____ colorful? _____ airy? _____ comfortable? _____ What assumptions about training/learning does the interior decoration reveal?

_____ What are the rooms like? _____ What kind of furniture do they contain? _____ Is it comfortable? _____ Do employees have the same or different furniture? _____ How is seating arranged? _____ What lines of communication do the seating arrangement suggest? _____ What assumptions about status do the furniture and arrangement suggest? _____ What kinds of behaviors do the room seem to encourage? _____ What assumptions about learning behavior does the room suggest? _____ What kinds of objects decorate the walls of the rooms? _____ the halls? _____ the auditorium? _____ the bathrooms_____ Pictures? _____ What about? Signs? _____ What do people say? _____ Flags? _____ Trophies? _____ Mottos? _____ What kinds of ideas? _____ people? _____ activities? _____ does the business seem to honor in such decorations?

o What are the rules of the business?

____ What purpose do the rules serve?

____ What assumptions about the relationship of employees to the business do the rules suggest?

____ What assumptions about the attitudes of employees toward the business do the rules suggest?

____ Does the business have rules for dress?

____ What purposes do they serve?

____ What attitudes toward people do they reveal? What assumptions about training/learning do they suggest?

____ What do the rules of the business communicate about the attitudes of administrators toward the employees?

____ About the kinds of behavior the business values and deplores?

Who?

_____ Who or what poses most of the questions in the room?

_____ Who decides what issues will be discussed in the business?

_____ Who decides what is serious comment?

_____ Once a question has been raised or problem posed, who or what responsible for finding or providing the information necessary to answer or solve it?

_____ Who does most of the talking in the business? _____ Who needs permission to talk? _____ from whom?

_____ Do employees address most of their statements and questions to one another?

_____ Do employees listen as attentively to their fellow employees ?

_____What kinds of information do the employees spend most of their time studying?

_____ What purposes in the culture might their learning this information serve?

_____Who in the culture benefits by the employees studying this information?

_____What kinds of activities do the employees spend most of their time performing?

_____What habits or skills do these activities develop or reinforce?

_____What assumptions about learning underlie the encouragement of these activities?

_____What inferences would you make about the information and skills the culture values most?

_____On the basis of the information employees study and the activities they perform, what inferences would you make about the kinds of things the culture expects them to do?

____What kinds of models of behavior does the business provide?

____How do employees behave?

____How do employees speak?

____How would you characterize their personalities?

____What are their interests?

____What characteristics do they have in common?

____In how many ways do they differ?

____Who are the **role models** that are invited to speak?

____What do they do for a living?

____How do they dress?

____How do they behave?

____How do they speak?

____ Who are the people pictured in the halls, on the bulletin boards, and named in plaques in the business?

____For what reasons are they honored?

____Who are they selected by?

____ What are the common characteristics of these employees?

____ What inferences can you make, on the basis of these models, about the values of the culture?

____ How are the employees organized for instruction?

____ If they are grouped in some way, what seems to be the basis for grouping them?

____ Does the purpose of the grouping seem to be to promote homogeneity or diversity within a given group?

____ What assumptions about learning does the grouping system reflect?

____ What cultural values and attitudes does the grouping system reflect? ____ What kind of beliefs, values, attitudes, and behaviors does the grouping system promote in employees?

____ Are the different groups of employees given different kinds of information to study or activities to perform?

____ What assumptions about human beings and human behavior might underlie such arrangements?

____ What cultural purposes might such arrangements serve?

____ Are the employees in this institution screened or selected in some way from a larger group?

____ What seem to be the criteria for screening or selecting them?

____ What assumtions about learning underlie the establishment of those criteria?

____ What cultural values might the criteria reflect?

____ What kinds of rites and rituals are performed at regular intervals within the institution?

____ What seem to be the purposes of these rites and rituals ?

____ What cultural purposes do they serve?

____ What cultural values do they reflect?

____ What kinds of symbols do they involve?

____ What role do employees play in their performance?

____ What role do managers play?

____ Does the community at large take any part?

____ What cultural beliefs do the rites and rituals encode and transmit to the employees?

____ What roles and responsibilities in the culture are the business training employees to assume?

____ What attitudes toward authority are the employees training students to accept?

____ What attitudes toward their peers are the business training the employees to take?

____ What inferences can you make about the behaviors and the cultural values?

____ What assumptions about the learning process underlie these definitions of roles and responsibilities?

____ What forms of government would you expect to find in a culture which trains its employees to assume these roles and responsibilities?

Workplace Environmental Literacy Project (WELP)

Attachment I

Sample Completed Literacy Audit

Attachment I
Sample Completed Literacy Audit

Interview S' ɜt
Manager Symbo: Interdata

M-7

Businesses by Catagory-Alphabatize within catagories and cross reference to Alphabetical listing-

Name of Company Interstate **Div.** Mfg
Address **City** **Zip**
Telephone number(
Contact person Dale Skandberg **Position** Mfg Assembly Supervisor
Ownership **Proprietorship, Partnership or Corp.**
Products or Services

	Industry		Location	Hi or Low Tech
Manufacture	X			
Wholesale				
Retail				
Hard Goods				
Information				
Services				
Resouce Intensity				
Capital				
Labor				
Targets				
Consumer				
Business	X Govt			

Number of Employees
People Employed Catagories

Position Electronic Assembly No. 33

Position No.

Position No.

Position No.

Open Ended Questions

A. What are the 5 major skills that your company looks for in a _____employee?

1. Reading Prints + Schematics
2. Soldering
3. General Dexterity
4. Mechanical skills
5. _____

B. What are the 5 knowledge skills that your company looks for in a _____employee?

1. English
2. Reading + Writing
3. Decimals + Fraction
4. Measurement - wts - volume - value
5. _____

C. What are the 5 most important interpersonal relationship skills that your company looks for in a _____employee?

1. Work with multi-ethnic (cultural) individuals
2. Communicate with each other
3. Work with other people
4. _____
5. _____

D. What are 5 specific job skills that your company looks for in a _____employee?

1. Soldering
2. Manual Dexterity
3. Wts + measures
4. read schematics
5. writing for inspection reports

E. Do you have standard forms for performance evaluations?

Yes X No_____

Copy_____

F. Do you have written job descriptions?

Yes X No_____

Copy_____

G. Are their manuals? (Yes) No - SMPS - SMOI
Is there a written Organizational chart? (Yes) No
Is there a written form of corporate purpose? (Yes) No
Is there a quality assurance or quality control program? (Yes) No

H. What are the key words in the Company?

1. Commitment
2. TQ Commitment
3. People Involvement
4.

I. What are the three most important roles of _____ employees?

1. Build Hardware right the 1st time
2. Know the Quality level required
3. Know the process

J. How do these specific employees fit into the overall corporate purpose of the company?

These are the people that actually make the money for the company.

K. How are these specific jobs related or articulated with other postions in the company?

Elect. Assem → To any job in mfg. up to Supervision.

L. Does the company require a resume? NO

M May we have a copy of the application? Yes

Thank You

Interviewer Signature Roger Lee

Signs, Symbols, Behaviors, Metaphors, Images

Environment Questions

Where Intersate Electronics

_____ Where is the location of the activity in relation to the rest of the work? _____ Central? _____ Peripheral?

Retired Commercial, Residential, Industrial _____ What are the surroundings? Yes Is it easy to reach?

Yes Are there locked doors? _____ Fences? Yes No trespassing signs? Yes Vistor report to office signs? Yes Building guards? What puposes do they serve? To prevent unauthorized visitors

N/A What underlying assumptions do they suggest about the relationship between business and employees? N/A What does it suggest about the relationships?

What _____

Low - bungalow like _____ What are the architectural features of the building?

Walking in lines - no walkways _____ What kind of activities does it seem to encourage?

Focus on what's ahead _____ What purposes does the architecture seem designed to serve?

Training not learning _____ What attitudes does it communicate learning?

o

Industrial Furniture _____ What kinds of special facilities does the it have? Offices Are there rooms designed for specific purposes? Yes What purposes? Secret or Top Secret

Electronic + Testing Equip _____ What kinds of equipment for work? modern? N/A for other purposes?

Gov't work _____ Can you make inferences about the kinds of activities the business values most?

:

Bleak _____ What is the interior decoration like? _____ is it clear? Yes organized? No colorful? No airy? No Air Conditioned comfortable? No What assumptions learning does the interior decoration reveal? Work is dreary compared to outside world.

Signs, Symbols, Behaviors, Metaphors, Images

What

o

Large mpy What are the rooms like? Stools + tables What kind of furniture do they contain? No Is it comfortable? Different Do employees have the same or different furniture? _____ How is seating arranged? According to assembly order Small Group What lines of communication does the seating arrangement suggest? _____ What assumptions about status does the furniture and arrangement suggest? _____ What kinds of behaviors does the room seem to encourage? Fast Reptitious action What assumptions about learning behavior does the room suggest? No distractions

o

Wires What kinds of objects decorate the walls of the rooms? _____ the halls? Union + Safety Notices the auditorium? X the bathrooms X Pictures? _____ What about? Signs? _____ What do people say? Y Flags? _____ Trophies? _____ Mottos? _____ What kinds of ideas? _____ people? _____ activities? _____ does the business seem to honor in such decorations? Office has pictures of founder

o

Finish on time What are the rules of the business?

o

To get contract bonuses What purpose do the rules serve?

This is place to get paid for work only What assumptions about the relationship of employees to the business do the rules suggest?

They have to be reminded constantly What assumptions about the attitudes of employees toward the business do the rules suggest?

Yes Does the business have rules for dress?

Safety What purposes do they serve?

Signs, Symbols, Behaviors, Metaphors, Images

Safety is a money matter

___ What attitudes toward people do they reveal? What assumptions about learning do they suggest?

___ What do the rules of the business communicate about the attitudes of administrators toward the employees?

___ About the kinds of behavior the business values and deplores?

Values accuracy & dependability repeated

o

___ Who?

Supervisor ___ Who or what poses most of the questions in the room?

Mgt ___ Who decides what issues will be discussed in the business?

o

Mgt ___ Who decides what is serious comment?

o

Mgt ___ Once a question has been raised or problem posed, who or what responsible for finding or providing the information necessary to answer or solve it?

o

Mgt ___ Who does most of the talking in the business? Workers Who needs permission to talk? Supervisor from whom?

N/A ___ Do employees address most of their statements and questions to one another?

o

Yes ___ Do employees listen as attentively to their fellow employees?

o

Schematics ___ What kinds of information do the employees spend most of their time studying?

accuracy of work ___ What purposes in the culture might their learning and information serve?

Signs, Symbols, Behaviors, Metaphors, Images

they all do
___ Who in the culture benefits by the employees studying this information?

Assembly
___ What kinds of activities do the employees spend most of their time performing?

Repitive - Boring actions
___ What habits or skills do these activities develop or reinforce?

Employee are machines
___ What assumptions about learning underlie the encouragement of these activities?

Know how to follow instructions
___ What inferences would you make about the information and skills the culture values most?

Same
___ On the basis of the information employees study and the activities they perform, what inferences would you make about the kinds of things the culture expects them to do?

Mechanical
___ What kinds of models of behavior does the business provide?

o

Quiet
___ How do employees behave?

Quietly
___ How do employees speak?

Disinterested participation
___ How would you characterize their personalities?

Paycheck
___ What are their interests?

Work at same job in same company
___ What characteristics do they have in common?

Come from different cultures at home
___ In how many ways do they differ?

o

DK
___ Who are the role models that are invited to speak?

DK
___ What do they do for a living?

DK
___ How do they dress?

DK
___ How do they behave?

DK
___ How do they speak?

Signs, Symbols, Behaviors, Metaphors, Images

o

Founders + CEOS ___ Who are the people pictured in the halls, on the bulletin boards, and named in plaques in the business?

Leadership + money makers ___ For what reasons are they honored?

DK ___ elected by?

Members ___ What are the common characteristics of these employees?

___ What inferences can you make, on the basis of these models, about the values of the culture?

o

Small group ___ How are the employees organized for instruction?

by job title ___ If they are grouped in some way, what seems to be the basis for grouping them?

N/A ___ Does the purpose of the grouping seem to be to promote homogeneity or diversity within a given group?

little flexibility required ___ What assumptions about learning does the grouping system reflect?

little vertical employee movement in jobs ___ What cultural values and attitudes does the grouping system reflect?

Detachment from job ___ What kind of beliefs, values, attitudes, and behaviors does the grouping system promote in employees?

Yes ___ Are the different groups of employees given different kinds of information to study or activities to perform?

Division of labor better than multi-tasked individuals ___ What assumptions about human beings and human behavior might underlie such arrangements?

DK ___ What cultural purposes might such arrangements serve?

o

DK ___ Are the employees in this institution screened or selected in some way from a larger group?

DK ___ What seem to be the criteria for screening or selecting them?

Signs, Symbols, Behaviors, Metaphors, Images

DK What assumtions about learning underlie the establishment of those criteria?

DK What cultural values might the criteria reflect?

o
Company Events Golf, Picnics
___ What kinds of rites and rituals are performed at regular intervals within the institution? Medmutts company

Teamwork emotional
Teamwork Promotion
___ What seem to be the purposes of those rites and rituals ?

___ What cultural purposes do they serve?

___ What cultural values do they reflect?

Family
___ What kinds of symbols do they involve?

DK What role do employees play in their performance?

Among
___ What role do managers play?

DK Does the community at large take any part?

DK What cultural beliefs do the rites and rituals encode and transmit to the employees?

o
Not many
___ What roles and responsibilities in the culture is the business training employees to assume?

Passivity
___ What attitudes toward authority is the employees training students to accept?

Covert alliances
___ What attitudes toward their peers is the business training the employees to take?

Finding a contract + getting paid are most important
___ What inferences can you make about the behaviors the culture values?

Unless one is paid for it, don't learn it,
___ What assumptions about the learning process underlie these definitions of roles and responsibilities?

Totalitarian
___ What forms of government would you expect to find in a culture which trains its employees to assume these roles and responsibilities?

Workplace Environmental Literacy Project (WELP)

Attachment J

Competency Statements by Quadrant Area

ELECTRONIC ASSEMBLY COMPETENCY LIST
by
QUADRANT AREA

Work Maturity

Work Maturity Skills are basic personal-social skills and positive work habits that all workers need in order to function effectively in the work place.

1. Anticipates job responsibilities beyond the job description.
   (Willing to do more than is required for the job)

2. Gives notice when equipment is inoperable.
   (Tells supervisor when equipment is broken)

3. Follows oral and written instructions
   (Follows instructions given by supervisor or by company manuals)

4. Notifies employer/instructor of necessary absence or tardiness.
   (Tells employer when he/she is not coming to work or if he/she is going to be late)

5. Understands functional dress code.
   (Understands employer's dress code)

6. Takes no excessive time off and gives advance notification whenever possible.
   (Takes very little time off the job and tells employer ahead of time if he/she is not coming to work)

7. Requests work when current task is completed.
   (Asks for more work when the job that he/she is working on is finished)

8. Interacts appropriately with public.
   (Deals with customers with the right attitude and behavior, as required by the job)

9. Follows work site standards of behavior.
   (Follows the company standards for behavior on the job and for getting along with co-workers)

10. Willing to adhere to uniform (clothing or attire) policies.
    (Wears the right clothing to work, according to company standards)

11. Accepts responsibility for his/her actions individually?
    (Will stand by what he does and will not blame other for his mistakes)

12. Able to understand and articulate supervisor's point of view.
    (Able to understand where supervisor or employer is coming from and can talk about it)

13. Is responsive to criticism, listens, corrects behaviors and practices.
    (Listens to supervisor's criticism and corrects his/her behavior or actions, based on this information)

Organizational Effectiveness

Organizational Effectiveness refers to the extent to which a worker is aware of the workings of an organization and is able to contribute to the organization's goals.

1. Understands and complies with published or commonly agreed upon,organizational purpose.
   (Knows and respects the company's purpose, that is, knows its products and services)

2. Acknowledges the needs/values of company/organization.
   (Understands what the company "stands for," that is, the convictions or doctrines that the company encourages its workers to accept)

3. Knows who the company's/organization's customers are.

4. Open to change (including innovations) in job duties/job descriptions. (Is willing to try new ways of doing the job)

5. Seeks new ways of doing things and understands how to implement change.
(Looks for new ways of doing things and knows how to try new things out)

6. Completes work to meet custom r's standard.
(Finishes work that is satisfying to the customer)

7. Adapts to changes in work (flexibility).
(Accepts changes in job)

8. Performs work that meets quality control standards.
(Does quality work that meets company standards)

o *Develops and maintains teams in the work place.*

9. Able to contribute to group agreements on activities, standards and ethics of group.
(Has something to offer to his/her team's activities, rules, and convictions)

10. Identifies acceptable range of behavior for workgroup members and contributes to the establishment of a group "culture."
(Knows the behavior that team members expect and support the rules/beliefs of the group)

11. Enforces standards of the group and reinforces/maintains the group "culture."
(Stands up for the rules of his/her team)

12. Contributes to an identifiable logo/name/title that symbolizes group identity.
(Offers suggestions for his/her team name and symbol)

Teamwork Skills

Teamwork is the ability of an employee to work with others to achieve a goal, to resolve conflicts, and to demonstrate negotiation skills.

1. Recognizes work groups (teams) within the organizations.
   (Can spot teams (work groups) within the company)

2. Participates within workgroups (teams) to collaborate on mutually agreed upon goals/tasks.
   (Is a working member of a team and cooperates with other members to reach team's goals.)

3. Works within own workgroup in collaborative activities with other workgroups towards overall organizational goals.
   (Works as a member of his/her own team to cooperate with other teams in working towards company goals)

4. Takes initiative in a group of co-workers.
   (Takes the lead within a team of co-workers)

5. Complies with individual and group expectations on punctuality and attendance.
   (Lives up to his/her team's rules on showing up and being on time)

6. Well-mannered, resolves differences with supervisors effectively.
   (Able to smoothly settle differences with supervisors without a hassle)

o Teamwork behaviors:

7. Cooperates with co-workers.
   (Gets along with fellow workers)

8. Polite and always willing to help others.
   (Has good manners and is polite)

9. Lends assistance and support as appropriate.
   (Helps out fellow workers, when needed)

10. Appreciates critical review of work by peers.
    (Is thankful for constructive criticism from fellow workers)

11. Accepts responsibility for his/her actions in group settings.
    (Will stand by his/her own actions within a team and will not blame others for his/her own mistakes)

12. Express appreciation and acknowledges the efforts of other group members.
    (Able to complement the efforts of other people within his/her team)

13. Resolves differences with co-workers tactfully and appropriately.
    (Able to smoothly settle his/her differences with co-workers without a hassle)

14. Intervenes in an conflict situation and works toward amicable resolution.
    (Acts as a "peace-maker" between fellow workers who are at odds and helps them come up with a solution)

15. Acknowledges ethnic and cultural differences in co-workers.
    (Respects fellow workers of different race or background)

16. Is fully aware of his/her responsibility & possible consequences (positive or negative) while intervening in conflict situation.
    (Understands the pro's and con's of acting as a "peacemaker between co-workers who are at odds).

17. Subrogates his/her own needs and values (or points-of-view) when compromise is required to achieve group goals.
    (Puts needs and goals of the team above his/her own so that the group may achieve its goals)

18. Acknowledges the needs/values of the group.
    (Recognizes the needs and beliefs of his/her team)

19. Acknowledges the needs/values of individuals within the group. (Recognizes the needs and beliefs of people within his/her team)

20. Willing to take first step to complete team tasks.

Job Specific Skills

Job Specific Skills are specific knowledge and skills required for a worker to carry out job tasks that are unique to a specific occupation or cluster of occupations.

1. Communicates and expresses himself/herself clearly. (Gets ideas across to fellow workers and supervisor)

2. Strings wires in wire harnesses.

3. Demonstrates appropriate finger dexterity and eye-hand coordination. (Has steady fingers when handling small objects; Can put together small parts using eyes and fingers)

4. Has knowledge of and is able to work with adhesives and bonding materials used in electronic assembly. (Knows about and works well with adhesives and bonding materials used in electronic assembly)

5. Sorts components by quality, requiring judgement. (Sorts electronic components by quality)

6. Examines manuals and operating procedures in order to decide how work should be done, or what sequence it should be done. (Decides how work will be done and what steps will be used, using instructions of supervisor or information in manuals.)

7. Uses stenciling techniques for marking circuit boards.

8. Demonstrates knowledge of simple electricity, circuits, volts, and amps.
   (Knows about simple electricity, circuits, volts, and amps.)

9. Understands significance of electrostatic discharge while performing electronic assembly (i.e, understands the need to wear "grounding bracelet.")
   (Understands the need to wear "grounding bracelet" while performing electronic assembly.)

10. Etch-cuts circuit boards.

11. Identifies safety procedures.

12. Operates Hand tools.
    - Select proper hand tool for a specific task.
    - Lists maintenance procedures for hand tools.
    - Cleans and lubricates adjustable hand tools.
    - Operates hand riveter.
    - Adjusts wire strippers to proper size of wire.
    - Uses torque wrench according to specifications.
    - Uses needle nose pliers.

13. Uses microscope for assembly tasks.

14. Strips and tins wire.

15. Splices wires.

16. Demonstrates Soldering Techniques.

- Able to obtain Department of Defence (DOD) 2000 Soldering Certification.
  (Has enough soldering skills to pass the test for "Department of Defense (DOD) Soldering Certification")
- Selects correct soldering tools for the job.
- Prepares a soldering iron tip for use.
- Solders various types of wire splices.
- Solders electronic components to printed circuit board.
- Solders terminal lug to a wire.
- Solders heat sensitive component to a printed circuit board.
- Performs "one-touch" soldering.
- Identifies quality of soldering components.
- Able to de-solder components.

17. Circuit Boards

- Reads circuit diagrams.
- Installs components on printed circuit boards.
- Transfers circuit layout to a printed circuit board (via stenciling).
- Makes continuity checks of printed circuit boards.
  (Checks circuit boards to make sure they work)

18. Testing equipment operation

- Sets up oscilloscope for operation.
- Adjusts oscilloscope controls for stable waveform display.
- Sets multimeter controls for measurements.
- Measures direct current amperes in a circuit using a multimeter.
- Measures resistance using a multi-meter.
- Uses multi-meter to test capacitor.
- Tests a potentiometer by using a multimeter.
- Determines resistor size by using a multimeter.

19. Quality control

- Measures resistance in a series-parallel circuit.
- Measures current in a series-parallel circuit.
- Measures voltage in a series-parallel circuit.
- Troubleshoots series-parallel circuit.

20. Resistors/Capacitors

- Using color bands, determines size and tolerance of resistors. (Using color bands, finds size and tolerance of resistors)
- Identifies sizes and tolerance of resistor by color bands, without referring to a color-code list. (Finds sizes and tolerance of resistors using color bands, without looking and color-code list)

- Specify appropriate *replacements*
  (Finds right resistors/capacitors to be used as replacement parts)

- Determines size using a multimeter.
  (Finds size of resistor/capacitor using a multimeter)

Basic Education

Basic Educational Skills are academic skills (reading, writing, math skills) and communication skills (speaking, and listening) that are <u>demonstrated</u> during the performance of job tasks.

1. Reads and comprehends technical manuals.
   (Reads and understands technical manuals)

2. Identifies terms used in electronic assembly.
   (Knows terms used in electronic assembly)

3. Matches terms with definitions associated with soldering.
   (Knows terms connected with soldering)

4. Uses indexes, table of contents to locate information.
   (Finds information in manuals using indexes and table of contents)

5. Measures volume, weights.

6. Performs linear measurement (wire length).
   (Measures length, e.g., wire length, board length, etc.)

7. Reads graduated scales.

8. Identifies fractions and decimal equivalents.

9. Adds and Subtracts fractions.

10. Multiplies and divides fractions.

11. Adds and subtracts decimals.

12. Multiplies and divides decimals.

13. Knows percentages and ratios as applicable to various solder alloys. (Knows percentages and ratios of solder alloys)

14. Calculates circuit values.

Learning to Learn

Learning to Learn refers the extent to which an employee "knows how to learn" job-related skills, while on the job, including problem solving, innovative/creative thinking, and strategies for personal and career development.

1. Displays willingness to learn new tasks assigned.
   (Willing to try new tasks)

2. Demonstrates problem solving and decision making skills.
   (Can solve problems that come up on the job; Can make decisions about what to do on the job)

3. Willing to ask questions.
   (Asks questions when he/she needs help)

4. Asks appropriate questions and makes suggestions.
   (Makes suggestions to make the job, product, or services better)

5. Demonstrates willingness to learn through frequency/appropriateness of responses to new policies, programs, or information.
   (Willing to learn and is open to new company policies, programs, or information)

6. Takes the initiative to learn tasks.
   (Seeks out training or information to learn new job tasks)

7. Willing to participate in inservice/staff development activities.
(Willing to take part in company in-service training programs)

8 Aware of outside learning activities/resources/opportunities for job-related skill enhancement (i.e., Awareness).
(Knows about training outside company that could help improve his/her job skills)

9. Initiates or investigates learning activities/resources/opportunities for job related skill enhancement (i.e., Acknowledgment).
(Seeks out training of inservice to improve his/her job skills)

10. Participates in learning activities/resources/opportunities for job related skill enhancements (i.e., Action).
(Signs up for and completes training or inservice that improves his/her job skills)

Workplace Environmental Literacy Project
(WELP)

Attachment K

Sample Employer Validation Chart

Sample Employer Validation Chart

ELECTRONIC ASSEMBLY

Rate the extent to which an effective electronic assembler would practice the following:

	Never	Seldom	Some-times	Often	Always
o Willing to do more than is required for the job.	1	2	3	4	5
o Knows and respects the company's purpose, that is, knows its products and services.	1	2	3	4	5
o Can spot teams (work groups) within the company.	1	2	3	4	5
o Gets ideas across to fellow workers and supervisor.	1	2	3	4	5
o Reads and understands technical manuals.	1	2	3	4	5
o Willing to try new tasks.	1	2	3	4	5
o Tells supervisor when equipment is broken.	1	2	3	4	5
o Understands what the company "stands for," that is, the convictions or doctrines that the company encourages its workers to accept.	1	2	3	4	5
o Is a working member of a team and cooperates with other members to reach team's goals.	1	2	3	4	5
o Strings wires in wire harnesses.	1	2	3	4	5
o Knows terms used in electronic assembly.	1	2	3	4	5
o Can solve problems that come up on the job; Can make decisions about what to do on the job.	1	2	3	4	5
o Follows instructions given by supervisor or by company manuals.	1	2	3	4	5
o Knows who the company's/organization's customers are.	1	2	3	4	5

o	Works as a member of his/her own team to cooperate with other teams in working towards company goals.	1	2	3	4	5
o	Has steady fingers when handling small objects; Can put together small parts using eyes and fingers.	1	2	3	4	5
o	Knows terms connected with soldering.	1	2	3	4	5
o	Asks questions when he/she needs help.	1	2	3	4	5
o	Tells employer when he/she is not coming to work or if he/she is going to be late.	1	2	3	4	5
o	Is willing to try new ways of doing the job.	1	2	3	4	5
o	Sometimes takes the lead within a team of co-workers.	1	2	3	4	5
o	Knows about and works well with adhesives and bonding materials used in electronic assembly.	1	2	3	4	5
o	Finds information in manuals using indexes and table of contents.	1	2	3	4	5
o	Makes suggestions to make the job, products, or services better.	1	2	3	4	5
o	Understands employer's dress code.	1	2	3	4	5
o	Looks for new ways of doing things and knows how to try new things out.	1	2	3	4	5
o	Always takes the lead in a team of co-workers.	1	2	3	4	5
o	Sorts electronic components by quality.	1	2	3	4	5
o	Measures volume, weights.	1	2	3	4	5
o	Willing to learn and is open to new company policies, programs, or information.	1	2	3	4	5
o	Takes very little time off the job and tells employer a ahead of time if he/she is not coming to work.	1	2	3	4	5
o	Finishes work that is satisfying to the customer.	1	2	3	4	5
o	Lives up to his/her team's rules on showing up and being on time.	1	2	3	4	5

o	Decides how work will be done and what steps will be used, using instructions of supervisor or information in manuals.	1	2	3	4	5
o	Measures distances.	1	2	3	4	
o	Seeks out training or information to learn new job tasks.	1	2	3	4	5
o	Asks for more work when the job that he/she is working on is finished.	1	2	3	4	5
o	Accepts changes in job.	1	2	3	4	5
o	Able to smoothly settle differences with supervisors without a hassle.	1	2	3	4	5
o	Uses stenciling techniques for marking circuit boards.	1	2	3	4	5
o	Measures length, e.g., wire length, board length, etc.	1	2	3	4	5
o	Willing to take part in company in-service training programs.	1	2	3	4	5
o	Deals with customers with the right attitude and behavior, as required by the job.	1	2	3	4	5
o	Does quality work that meets company standards.	1	2	3	4	5
o	Gets along with fellow workers.	1	2	3	4	5
o	Knows about simple electricity, circuits, volts, amps.	1	2	3	4	5
o	Reads graduated scales.	1	2	3	4	5
o	Knows about training outside company that could help improve his/her job skills.	1	2	3	4	5
o	Follows the company standards for behavior on the job and for getting along with co-workers.	1	2	3	4	5
o	Has something to offer to his/her team's activities, rules, and convictions.	1	2	3	4	5
o	Has good manners and is polite.	1	2	3	4	5
o	Understands the need to wear "grounding bracelet" while performing electronic assembly.	1	2	3	4	5

o	Identifies fractions and decimals equivalents.	1	2	3	4	5
o	Seeks out training or inservice to improve his/her job skills.	1	2	3	4	5
o	Knows the behavior that team members expect and supports the rules/beliefs of the group.	1	2	3	4	5
o	Helps out fellow workers, when needed.	1	2	3	4	5
o	Etch-cuts circuit boards.	1	2	3	4	5
o	Adds and subtracts fractions.	1	2	3	4	5
o	Signs up for and completes training or inservice that improves his/her job skills.	1	2	3	4	5
o	Will stand by what he does and will not blame others for his mistakes.	1	2	3	4	5
o	Stands up for the rules of his/her team.	1	2	3	4	5
o	Is thankful for constructive criticism from fellow workers.	1	2	3	4	5
o	Identifies safety procedures.	1	2	3	4	5
o	Multiplies and divides fractions.	1	2	3	4	5
o	Able to understand where supervisor or employer is coming from and can talk about it.	1	2	3	4	5
o	Offers suggestions for his/her team name and symbol.	1	2	3	4	5
o	Will stand by his/her own actions within a team and will not blame others for his/her own mistakes.	1	2	3	4	5
o	Operates Hand Tools.					
	- Selects proper hand tool for a specific task.	1	2	3	4	5
	- Lists maintenance procedures for hand tools.	1	2	3	4	5
	- Cleans and lubricates adjustable hand tools.	1	2	3	4	5
	- Operates hand riveter.	1	2	3	4	5
	- Adjusts wire strippers to proper size of wire.	1	2	3	4	5

	- Uses torque wrench according to specifications.	1	2	3	4	5
	- Uses needle nose pliers.	1	2	3	4	5
o	Adds and subtracts decimals.	1	2	3	4	5
o	Listens to supervisor's criticism and corrects his/her behavior or actions, based on this information.	1	2	3	4	5
o	Able to complement the efforts of other people within his/her team.	1	2	3	4	5
o	Use microscope for assembly tasks	1	2	3	4	5
o	Multiplies and divides decimals.	1	2	3	4	5
o	Able to smoothly settle his/her differences with co-workers, without a hassle.	1	2	3	4	5
o	Strips and tins wire.	1	2	3	4	5
o	Knows percentages and ratios of solder alloys.	1	2	3	4	5
o	Acts as a "peace-maker" between fellow workers who are at odds and helps them come up with a solution.	1	2	3	4	5
o	Splices wires.	1	2	3	4	5
o	Calculates circuit values.	1	2	3	4	5
o	Respects fellow workers of different race or background.	1	2	3	4	5
o	Demonstrates soldering techniques					
	- Has enough soldering skills to pass the test for a Department of Defense (DOD) Soldering Certification")	1	2	3	4	5
	- Selects correct soldering tools for the job.	1	2	3	4	5
	- Prepares a soldering iron tip for use.	1	2	3	4	5
	- Solders various types of wire splices.	1	2	3	4	5
	- Solders electronic components to printed circuit board.	1	2	3	4	5
	- Solders terminal lug to a wire.	1	2	3	4	5

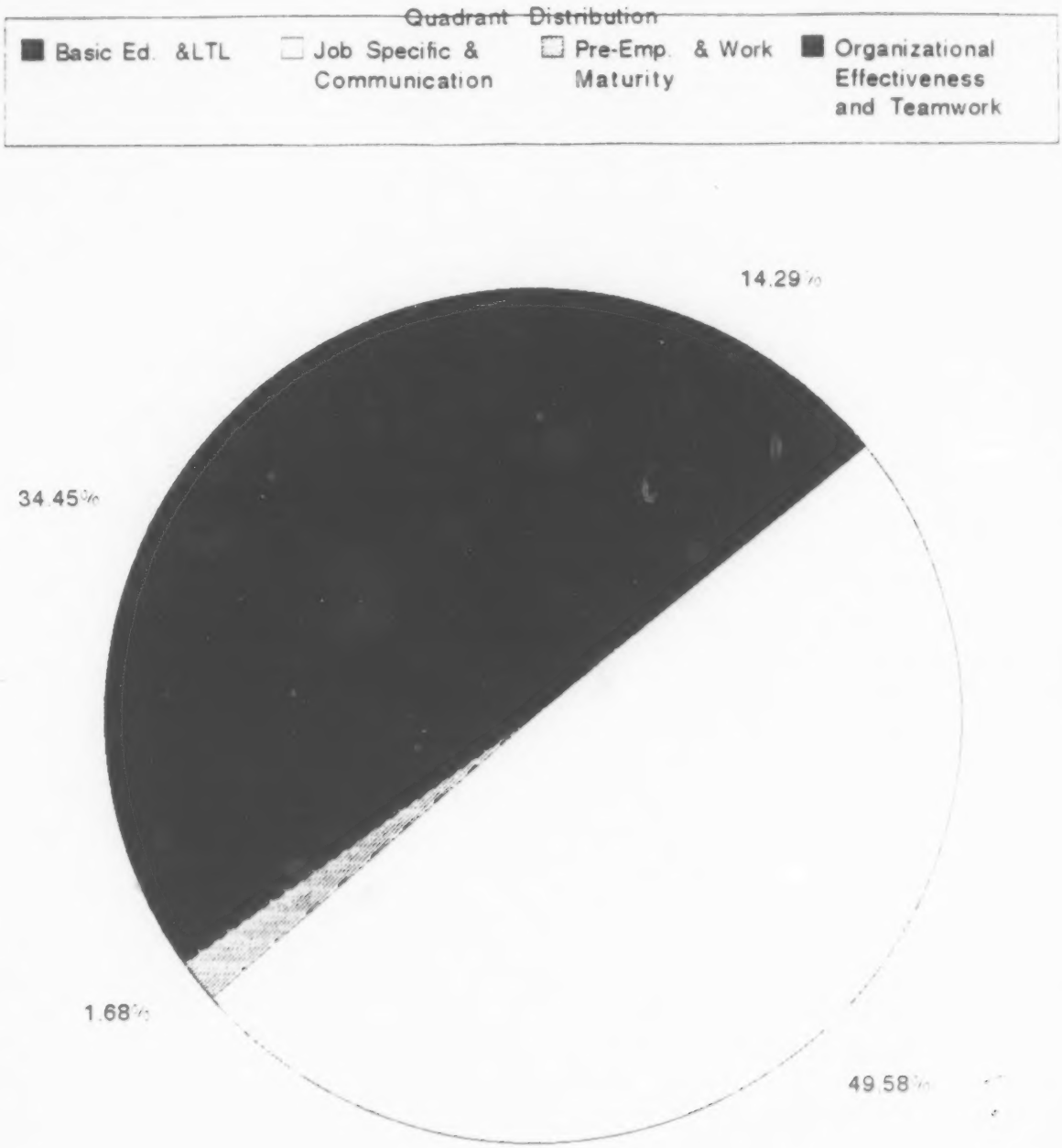
-	Solders heat sensitive component to a printed circuit board.	1	2	3	4	5
-	Performs "one-touch" soldering.	1	2	3	4	5
-	Identifies quality of soldering components.	1	2	3	4	5
-	Able to de-solder components.	1	2	3	4	5
o	Understands the pro's and con's of acting as a "peacemaker" between co-workers who are at odds.	1	2	3	4	5
o	Works with Circuit Boards					
-	Reads circuit diagrams.	1	2	3	4	5
-	Installs components on printed circuit boards.	1	2	3	4	5
-	Transfers circuit layout to a printed circuit boards (via stenciling).	1	2	3	4	5
-	Checks circuit boards to make sure they work.	1	2	3	4	5
o	Puts needs and goals of the team above his/her own so the group may achieve its goals.	1	2	3	4	5
o	Operates testing equipment					
-	Sets up oscilloscope for operation.	1	2	3	4	5
-	Adjusts oscilloscope controls for stable waveform display.	1	2	3	4	5
-	Sets multimeter controls for measurements.	1	2	3	4	5
-	Measures direct current amperes in a circuit using a multimeter.	1	2	3	4	5
-	Measures resistance using a multi-meter.	1	2	3	4	5
-	Uses multi-meter to test capacitor.	1	2	3	4	5
-	Tests a potentiometer by using a multimeter.	1	2	3	4	5
-	Determines resistor size by using a multimeter.	1	2	3	4	5
o	Recognizes the needs and beliefs of his/her team.	1	2	3	4	5

o	Performs quality control procedures					
	- Measures resistance in a series-parallel circuit.	1	2	3	4	5
	- Measures current in a series-parallel circuit.	1	2	3	4	5
	- Measures voltage in a series-parallel circuit.	1	2	3	4	5
	- Troubleshoots series-parallel circuit.	1	2	3	4	5
o	Recognizes the needs and beliefs of people within his/her team.	1	2	3	4	5
o	Uses resistors and capacitors					
	- Using color bands, finds size and tolerance of resistors.	1	2	3	4	5
	- Finds sizes and tolerance of resistors using color bands, without looking and color-code list.	1	2	3	4	5
	- Finds right resistors/capacitors to be used as replacement parts.	1	2	3	4	5
	- Finds size of resistor/capacitor using a multimeter.	1	2	3	4	5
o	Willing to take first step to complete team tasks.	1	2	3	4	5

Workplace Environmental Literacy Project (WELP)

Attachment L

Validated Competencies Graphed by Literacy Quadrant Distribution


Quadrant Distribution
Basic Ed. &LTL
Job Specific & Communication
Pre-Emp. & Work Maturity
Organizational Effectiveness and Teamwork
14.29%
34.45%
1.68%
49.58%

Workplace Environmental Literacy Project
(WELP)

Attachment M:

Competencies: Electronic Assembler

- Willing to do more than is required for the job.
- Knows and respects the company's purpose, that is, knows its products and services.
- Can spot teams (work groups) within the company.
- Gets ideas across to fellow workers and supervisor.
- Reads and understands technical manuals.
- Willing to try new tasks.
- Tells supervisor when equipment is broken.
- Understands what the company "stands for," that is, the convictions or doctrines that the company encourages its workers to accept.
- Is a working member of a team and cooperates with other members to reach team's goals.
- Strings wires in wire harnesses.
- Knows terms used in electronic assembly.
- Can solve problems that come up on the job;
- Can make decisions about what to do on the job.
- Follows instructions given by supervisor or by company manuals.
- Knows who the company's/organization's customers are.
- Works as a member of his/her own team to cooperate with other teams in working towards company goals.

- Has steady fingers when handling small objects; Can put together small parts using eyes and fingers.
- Knows terms connected with soldering.
- Asks questions when he/she needs help.
- Tells employer when he/she is not coming to work or if he/she is going to be late.
- Is willing to try new ways of doing the job.
- Sometimes takes the lead within a team of co-workers.
- Knows about and works well with adhesives and bonding materials used in electronic assembly.
- Finds information in manuals using indexes and table of contents.
- Makes suggestions to make the job, products, or services better.
- Understands employer's dress code.
- Looks for new ways of doing things and knows how to try new things out.
- Always takes the lead in a team of co-workers.
- Sorts electronic components by quality.
- Measures volume, weights.
- Willing to learn and is open to new company policies, programs, or information.
- Takes very little time off the job and tells employer a ahead of time if he/she is not coming to work.
- Finishes work that is satisfying to the customer.
- Lives up to his/her team's rules on showing up and being on time.
- Decides how work will be done and what steps will be used, using instructions of supervisor or information in manuals.
- Measures distances.
- Seeks out training or information to learn new job tasks.
- Asks for more work when the job that he/she is working on is finished.
- Accepts changes in job.
- Able to smoothly settle differences with supervisors without a hassle.
- Uses stenciling techniques for marking circuit boards.
- Measures length, e.g., wire length, board length, etc.
- Willing to take part in company in-service training programs.
- Deals with cusomers with the right attitude and behavior, as required by the job.

- o Does quality work that meets company standards.
- o Gets along with fellow workers.
- o Knows about simple electricity, circuits, volts, amps.
- o Reads graduated scales.
- o Knows about training outside company that could help improve his/her job skills.
- o Follows the company standards for behavior on the job and for getting along with co-workers.
- o Has something to offer to his/her team's activities, rules, and convictions.
- o Has good manners and is polite.
- o Understands the need to wear "grounding bracelet" while performing electronic assembly.
- o Identifies fractions and decimals equivalents.
- o Seeks out training or inservice to improve his/her job skills.
- o Knows the behavior that team members expect and supports the rules/beliefs of the group.
- o Helps out fellow workers, when needed.
- o Etch-cuts circuit boards.
- o Adds and subtracts fractions.
- o Signs up for and completes training or inservice that improves his/her job skills.
- o Will stand by what he does and will not blame others for his mistakes.
- o Stands up for the rules of his/her team.
- o Is thankful for constructive criticism from fellow workers.
- o Identifies safety procedures.
- o Multiplies and divides fractions.
- o Able to understand where supervisor or employer is coming from and can talk about it.
- o Offers suggestions for his/her team name and symbol.
- o Will stand by his/her own actions within a team and will not blame others for his/her own mistakes.
- o Operates Hand Tools.
  - Selects proper hand tool for a specific task.
  - Lists maintenance procedures for hand tools.
  - Cleans and lubricates adjustable hand tools.
  - Operates hand riveter.
  - Adjusts wire strippers to proper size of wire.

  - Uses torque wrench according to specifications.
  - Uses needle nose pliers.
- Adds and subtracts decimals.
- Listens to supervisor's criticism and corrects his/her behavior or actions, based on this information.
- Able to complement the efforts of other people within his/her team.
- Use microscope for assembly tasks
- Multiplies and divides decimals.
- Able to smoothly settle his/her differences with co-workers, without a hassle.
- Strips and tins wire.
- Knows percentages and ratios of solder alloys.
- Acts as a "peace-maker" between fellow workers who are at odds and helps them come up with a solution.
- Splices wires.
- Calculates circuit values.
- Respects fellow workers of different race or background.
- Demonstrates soldering techniques
  - Has enough soldering skills to pass the test for a Department of Defense (DOD) Soldering Certification.
  - Selects correct soldering tools for the job.
  - Prepares a soldering iron tip for use.
  - Solders various types of wire splices.
  - Solders electronic components to printed circuit boards.
  - Solders terminal lug to a wire.
  - Solders heat sensitive component to a printed circuit board.
  - Performs "one-touch" soldering.
  - Identifies quality of soldering components.
  - Able to de-solder components.
- Understands the pro's and con's of acting as a "peacemaker" between co-workers who are at odds.
- Works with Circuit Boards
  - Reads circuit diagrams.
  - Installs components on printed circuit boards.
  - Transfers circuit layout to a printed circuit boards (via stenciling).
  - Checks circuit boards to make sure they work.

- o Puts needs and goals of the team above his/her own so that the group may achieve its goals.
- o Operates testing equipment
  - Sets up oscilloscope for operation.
  - Adjusts oscilloscope controls for stable waveform display.
  - Sets multimeter controls for measurements.
  - Measures direct current amperes in a circuit using a multimeter.
  - Measures resistance using a multi-meter.
  - Uses multi-meter to test capacitor.
  - Tests a potentiometer by using a multimeter.
  - Determines resistor size by using a multimeter.
- o Recognizes the needs and beliefs of his/her team.
- o Performs quality control procedures
  - Measures resistance in a series-parallel circuit.
  - Measures current in a series-parallel circuit.
  - Measures voltage in a series-parallel circuit.
  - Troubleshoots series-parallel circuit.
- o Recognizes the needs and beliefs of people within his/her team.
- o Uses resistors and capacitors
  - Using color bands, finds size and tolerance of resistors.
  - Finds sizes and tolerance of resistors using color bands, without looking and color-code list.
  - Finds right resistors/capacitors to be used as replacement parts.
  - Finds size of resistor/capacitor using a multimeter.
- o Willing to take first step to complete team tasks.

Workplace Environmental Literacy Project
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Attachment N

Participant Perception Assessment Instrument

ELECTRONIC ASSEMBLY

Rate the extent to which an effective electronic assembler would practice the following:

		Never	Seldom	Some-times	Often	Always
o	Willing to do more than is required for the job.	1	2	3	4	5
o	Knows and respects the company's purpose, that is, knows its products and services.	1	2	3	4	5
o	Can spot teams (work groups) within the company.	1	2	3	4	5
o	Gets ideas across to fellow workers and supervisor.	1	2	3	4	5
o	Reads and understands technical manuals.	1	2	3	4	5
o	Willing to try new tasks.	1	2	3	4	5
o	Tells supervisor when equipment is broken.	1	2	3	4	5
o	Understands what the company "stands for," that is, the convictions or doctrines that the company encourages its workers to accept.	1	2	3	4	5
o	Is a working member of a team and cooperates with other members to reach team's goals.	1	2	3	4	5
o	Strings wires in wire harnesses.	1	2	3	4	5
o	Knows terms used in electronic assembly.					
o	Can solve problems that come up on the job; Can make decisions about what to do on the job.	1	2	3	4	5
o	Follows instructions given by supervisor or by company manuals.	1	2	3	4	5
o	Knows who the company's/organization's customers are.	1	2	3	4	5
o	Works as a member of his/her own team to cooperate with other teams in working towards company goals.	1	2	3	4	5
o	Has steady fingers when handling small objects; Can put together small parts using eyes and fingers.	1	2	3	4	5

Rate the extent to which an effective electronic assembler would practice the following:

	Never	Seldom	Some-times	Often	Always
o Knows terms connected with soldering.	1	2	3	4	5
o Asks questions when he/she needs help.	1	2	3	4	5
o Tells employer when he/she is not coming to work or if he/she is going to be late.	1	2	3	4	5
o Is willing to try new ways of doing the job.	1	2	3	4	5
o Sometimes takes the lead within a team of co-workers.	1	2	3	4	5
o Knows about and works well with adhesives and bonding materials used in electronic assembly.	1	2	3	4	5
o Finds information in manuals using indexes and table of contents.	1	2	3	4	5
o Makes suggestions to make the job, products, or services better.	1	2	3	4	5
o Understands employer's dress code.	1	2	3	4	5
o Looks for new ways of doing things and knows how to try new things out.	1	2	3	4	5
o Always takes the lead in a team of co-workers.	1	2	3	4	5
o Sorts electronic components by quality.	1	2	3	4	5
o Measures volume, weights.	1	2	3	4	5
o Willing to learn and is open to new company policies, programs, or information.	1	2	3	4	5
o Takes very little time off the job and tells employer a ahead of time if he/she is not coming to work.	1	2	3	4	5
o Finishes work that is satisfying to the customer.	1	2	3	4	5
o Lives up to his/her team's rules on showing up and being on time.	1	2	3	4	5

Rate the extent to which an effective electronic assembler would practice the following:

		Never	Seldom	Some-times	Often	Always
o	Decides how work will be done and what steps will be used, using instructions of supervisor or information in manuals.	1	2	3	4	5
o	Measures distances.	1	2	3	4	5
o	Seeks out training or information to learn new job tasks.	1	2	3	4	5
o	Asks for more work when the job that he/she is working on is finished.	1	2	3	4	5
o	Accepts changes in job.	1	2	3	4	5
o	Able to smoothly settle differences with supervisors without a hassle.	1	2	3	4	5
o	Uses stenciling techniques for marking circuit boards.	1	2	3	4	5
o	Measures length, e.g., wire length, board length, etc.	1	2	3	4	5
o	Willing to take part in company in-service training programs.	1	2	3	4	5
o	Deals with customers with the right attitude and behavior, as required by the job.	1	2	3	4	5
o	Does quality work that meets company standards.	1	2	3	4	5
o	Gets along with fellow workers.	1	2	3	4	5
o	Knows about simple electricity, circuits, volts, amps.	1	2	3	4	5
o	Reads graduated scales.	1	2	3	4	5
o	Knows about training outside company that could help improve his/her job skills.	1	2	3	4	5
o	Follows the company standards for behavior on the job and for getting along with co-workers.	1	2	3	4	5
o	Has something to offer to his/her team's activities, rules, and convictions.	1	2	3	4	5

Rate the extent to which an effective electronic assembler would practice the following:

	Never	Seldom	Some-times	Often	Always
o Has good manners and is polite.	1	2	3	4	5
o Understands the need to wear "grounding bracelet" while performing electronic assembly.	1	2	3	4	5
o Identifies fractions and decimals equivalents.	1	2	3	4	5
o Seeks out training or inservice to improve his/her job skills.	1	2	3	4	5
o Knows the behavior that team members expect and supports the rules/beliefs of the group.	1	2	3	4	5
o Helps out fellow workers, when needed.	1	2	3	4	5
o Etch-cuts circuit boards.	1	2	3	4	5
o Adds and subtracts fractions.	1	2	3	4	5
o Signs up for and completes training or inservice that improves his/her job skills.	1	2	3	4	5
o Will stand by what he does and will not blame others for his mistakes.	1	2	3	4	5
o Stands up for the rules of his/her team.	1	2	3	4	5
o Is thankful for constructive criticism from fellow workers.	1	2	3	4	5
o Identifies safety procedures.	1	2	3	4	5
o Multiplies and divides fractions.	1	2	3	4	5
o Able to understand where supervisor or employer is coming from and can talk about it.	1	2	3	4	5
o Offers suggestions for his/her team name and symbol.	1	2	3	4	5
o Will stand by his/her own actions within a team and will not blame others for his/her own mistakes.	1	2	3	4	5

Rate the extent to which an effective electronic assembler would practice the following:

	Never	Seldom	Some-times	Often	Always
o Operates Hand Tools.					
- Selects proper hand tool for a specific task.	1	2	3	4	5
- Lists maintenance procedures for hand tools.	1	2	3	4	5
- Cleans and lubricates adjustable hand tools.	1	2	3	4	5
- Operates hand riveter.	1	2	3	4	5
- Adjusts wire strippers to proper size of wire.	1	2	3	4	5
- Uses torque wrench according to specifications.	1	2	3	4	5
- Uses needle nose pliers.	1	2	3	4	5
o Adds and subtracts decimals.	1	2	3	4	5
o Listens to supervisor's criticism and corrects his/her behavior or actions, based on this information.	1	2	3	4	5
o Able to complement the efforts of other people within his/her team.	1	2	3	4	5
o Use microscope for assembly tasks.	1	2	3	4	5
o Multiplies and divides decimals.	1	2	3	4	5
o Able to smoothly settle his/her differences with co-workers, without a hassle.	1	2	3	4	5
o Strips and tins wire.	1	2	3	4	5
o Knows percentages and ratios of solder alloys.					
o Acts as a "peace-maker" between fellow workers who are at odds and helps them come up with a solution.	1	2	3	4	5
o Splices wires.	1	2	3	4	5
o Calculates circuit values.	1	2	3	4	5
o Respects fellow workers of different race or background.	1	2	3	4	5

Rate the extent to which an effective electronic assembler would practice the following:

	Never	Seldom	Some-times	Often	Always
o Demonstrates soldering techniques					
- Has enough soldering skills to pass the test for a Department of Defense (DOD) Soldering Certification")	1	2	3	4	5
- Selects correct soldering tools for the job.	1	2	3	4	5
- Prepares a soldering iron tip for use.	1	2	3	4	5
- Solders various types of wire splices.	1	2	3	4	5
- Solders electronic components to a printed circuit board.	1	2	3	4	5
- Solders terminal lug to a wire.	1	2	3	4	5
- Solders heat sensitive component to a printed circuit board.	1	2	3	4	5
- Performs "one-touch" soldering.	1	2	3	4	5
- Identifies quality of soldering components.	1	2	3	4	5
- Able to de-solder components.	1	2	3	4	5
o Understands the pro's and con's of acting as a "peacemaker" between co-workers who are at odds.	1	2	3	4	5
o Works with Circuit Boards					
- Reads circuit diagrams.	1	2	3	4	5
- Installs components on printed circuit boards.	1	2	3	4	5
- Transfers circuit layout to a printed circuit boards (via stenciling).	1	2	3	4	5
- Checks circuit boards to make sure they work.	1	2	3	4	5
o Puts needs and goals of the team above his/her own so that the group may achieve its goals.	1	2	3	4	5

Rate the extent to which an effective electronic assembler would practice the following:

	Never	Seldom	Some-times	Often	Always
o Operates testing equipment					
- Sets up oscilloscope for operation.	1	2	3	4	5
- Adjusts oscilloscope controls for stable waveform display.	1	2	3	4	5
- Sets multimeter controls for measurements.	1	2	3	4	5
- Measures direct current amperes in a circuit using a multimeter.	1	2	3	4	5
- Measures resistance using a multi-meter.	1	2	3	4	5
- Uses multi-meter to test capacitor.	1	2	3	4	5
- Tests a potentiometer by using a multimeter.	1	2	3	4	5
- Determines resistor size by using a multimeter.	1	2	3	4	5
o Recognizes the needs and beliefs of his/her team.	1	2	3	4	5
o Performs quality control procedures					
- Measures resistance in a series-parallel circuit.	1	2	3	4	5
- Measures current in a series-parallel circuit.	1	2	3	4	5
- Measures voltage in a series-parallel circuit.	1	2	3	4	5
- Troubleshoots series-parallel circuit.	1	2	3	4	5
o Recognizes the needs and beliefs of people within his/her team.	1	2	3	4	5
o Uses resistors and capacitors					
- Using color bands, finds size and tolerance of resistors.	1	2	3	4	5
- Finds sizes and tolerance of resistors using color bands, without looking and color-code list.	1	2	3	4	5

Rate the extent to which an effective electronic assembler would practice the following:

	Never	Seldom	Some-times	Often	Always
- Finds right resistors/capacitors to be used as replacement parts.	1	2	3	4	5
- Finds size of resistor/capacitor using a multimeter.	1	2	3	4	5
o Willing to take first step to complete team tasks.	1	2	3	4	5

Workplace Environmental Literacy Project
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Attachment O:

Behavioral Observation Checklist
Assessment Instrument

WORK PLACE LITERACY
COMPETENCY ASSESSMENT AND CERTIFICATION FORM:

ELECTRONIC ASSEMBLY

I. WORK MATURITY
COMPETENCY ASSESSMENT/CERTIFICATION

COMPETENCY	RATING	BENCHMARK	MET	COMMENTS
1. Anticipates job responsibilities beyond the job description. (Willing to do more than is required for the job.)		Rating by supervisor (3 or higher for certification)		
2. Gives notice when equipment is inoperable. (Tells supervisor when equipment is broken.)		Rating by supervisor (5 for certification)		
3. Follows oral and written instructions. (Follows instructions given by supervisor or by company manauls.)		Rating by supervisor (5 for certification)		
4 Notifies employer/instructor of necessary absence or tardiness. (Tells employer when he/she is not coming to work or if he/she is going to be late.)		Rating by supervisor (5 for certification)		
5. Understands functional dress code. (Understands employer's dress code.)		Rating by supervisor (5 for certification)		
6. Takes no excessive time off (Takes very little time off the job.)		To supervisor's satisfaction		
7. Requests work when current task is completed. (Asks for more work when the job that he/she is working on is finished.)		Rating by supervisor (4 or higher for certification)		
8. Interacts appropriately with public. (Deals with customers with the right attitude and behavior, as required by the job.)		Rating by supervisor (5 for certification)		
9. Follows work site standards of behavior. (Follows the company standards for behavior on the job and for getting along with co-workers.)		Rating by supervisor (5 for certification)		
10. Willing to adhere to uniform (clothing or attire) policies. (Wears the right clothing to work, according to company standards.)		Rating by supervisor (5 for certification)		

COMPETENCY	RATING	BENCHMARK	MET	COMMENTS
11. Accepts responsibility for his/her actions individually? (Will stand by what he does and will not blame others others for his mistakes.)		Rating by supervisor (4 or more for certification)		
13. Able to understand and articulate supervisor's point of view. (Able to understand where supervisor or employer is coming from and can talk about it.)		To supervisor's satisfaction		
15. In response to criticism, listens, corrects behaviors and practices. (Listens to supervisor's criticism and corrects his/her behavior or actions, based on this information.)		Rating by supervisor (4 or more for certification)		

II. ORGANIZATIONAL EFFECTIVENESS
COMPETENCY ASSESSMENT/CERTIFICATION

COMPETENCY	RATING	BENCHMARK	MET	COMMENTS
1. Understands and complies with published or commonly agreed upon, organizational purpose. (Knows and respects the company's purpose, that is, knows its products and services.)		To supervisor's satisfaction		
2. Acknowledges the needs/values of company/ organization. (Understands what the company "stands for," that is, the convictions or doctrines that the company encourages its workers to accept.)		To supervisor's satisfaction		
3. Knows who the company's/organization's customers are.		To supervisor's satisfaction		
4. Open to change (including innovations) in job duties/job descriptions. (Is willing to try new ways of doing the job.)		To supervisor's satisfaction		
5. Seeks new ways of doing things and understands how to implement change. (Looks for new ways of doing things and knows how to try new things out.)		Rating by supervisor (4 or higher for certification)		
6. Completes work to meet customer's standard. (Finishes work that is satisfying to the customer.)		Rating by supervisor (4 or higher for certification)		
7. Adapts to changes in work (flexibility). (Accepts changes in job.)		Rating by supervisor (4 or higher for certification)		
8. Performs work that meets quality control standards. (Does quality work that meets company standards.)		Rating by supervisor (4 or higher for certification)		

COMPETENCY	RATING	BENCHMARK	MET	COMMENTS
Develops and maintains teams in the work place				
9. Able to contribute to group agreements on activities, standards and ethics of group. (Has something to offer to his/her team's activities, rules, and convictions.)		Rating by supervisor (3 or higher for certification)		
10. Identifies acceptable range of behavior for workgroup members and contributes to the establishment of a group "culture." (Knows the behavior that team members expect and supports the rules/beliefs of the group.)		To supervisor's satisfaction		
11. Enforces standards of the group and reinforces/maintains the group "culture." (Stands up for the rules of his/her team)		Rating by supervisor (4 or higher for certification)		
15 Contributes to an identifiable logo/name/title that symbolizes group identity. (Offers suggestions for his/her team name and symbol.)		Rating by supervisor (3 or higher for certification)		

II-A. TEAM WORK SKILLS
COMPETENCY ASSESSMENT/CERTIFICATION

COMPETENCY	RATING	STANDARDS	MET	COMMENTS
1. Recognizes work groups (teams) within the organizations. (Can spot teams (work groups) within the company)		To supervisor's satisfaction		
2. Participates within workgroups (teams) to collaborate on mutually agreed upon goals/tasks. (Is a working member of a team and cooperates with other members to reach team's goals.)		To supervisor's satisfaction		
3. Works within own workgroup in collaborative activities with other workgroups towards overall organizational goals. (Works as a member of his/her own team to cooperate with other teams in working towards company goals)		To supervisor's satisfaction		
4. Takes initiative in a group of co-workers. (Takes lead within a team of co-workers)		Rating by supervisor (3 or higher for certification)		
5. Complies with individual and group expectations on punctuality and attendance. (Lives up to his/her team's rules on showing up and being on time)		To supervisor's satisfaction		
6. Well-mannered, resolves differences with supervisors effectively. (Able to smoothly settle differences with supervisors without a hassle)		To supervisor's satisfaction		
<u>Demonstrates teamwork behaviors</u>				
7. Cooperates with co-workers. (Gets along with fellow workers)		Rating by supervisor (4 or higher for certification)		
8. Polite and always willing to help others. (Has good manners and is polite.)		Rating by supervisor (4 or higher for certification)		

COMPETENCY	RATING	STANDARDS	MET	COMMENTS
9. Lends assistance and support as appropriate. (Helps out fellow workers, when needed.)		Rating by supervisor (4 or higher for certification)		
10. Appreciates critical review of work by peers. (Is thankful for constructive criticism from fellow workers.)		Rating by supervisor (4 or higher for certification)		
11. Accepts responsibility for his/her actions in group settings. (Will stand by his/her own actions within a team and will not blame others for his/her own mistakes.)		Rating by supervisor (4 or higher for certification)		
12. Express appreciation and acknowledges the efforts of other group members. (Able to complement the efforts of other people within his/her team.)		Rating by supervisor (4 or higher for certification)		
13. Resolves differences with co-workers tactfully and appropriately. (Able to smoothly settle his/her differences with co-workers, without a hassle.)		Rating by supervisor (4 or higher for certification)		
14. Intervenes in an conflict situation and works toward amicable resolution. (Acts as a "peace-maker" between fellow workers who are at odds and helps them come up with a solution.)		Rating by supervisor (3 or higher for certification)		
15. Acknowledges ethnic and cultural differences in co-workers. (Respects fellow workers of different race or background.)		Rating by supervisor (3 or higher for certification)		
16. Is fully aware of his/her responsibility and possible consequences (positive or negative) while intervening in conflict situation. (Understands the pro's and con's of acting as a "peacemaker" between co-workers who are at odds.)		To supervisor's satisfaction		

III. JOB SKILLS
COMPETENCY ASSESSMENT/CERTIFICATION

COMPETENCY	RATING	STANDARDS	MET	COMMENTS
1. Communicates and expresses himself/herself clearly. (Gets ideas across to fellow workers and supervisor.)		To supervisor's satisfaction		
2. Strings wires in wire harnesses.		To supervisor's satisfaction		
3. Demonstrates appropriate finger dexterity and eye-hand coordination. (Has steady fingers when handling small objects; Can put together small parts using eyes and fingers.)		To supervisor's satisfaction		
4. Has knowledge of and is able to work with adhesives and bonding materials used in electronic assembly. (Knows about and works well with adhesives and bonding materials used in electronic assembly.)		To supervisor's satisfaction		
5. Sorts components by quality, requiring judgement. (Sorts electronic components by quality.)		With 100% accuracy		
6. Examines manuals and operating procedures in order to decide how work should be done, or what sequence it should be done. (Decides how work will be done and what steps will be used, using instructions of supervisor or information in manuals.)		With 100% accuracy		
7. Uses stenciling techniques for marking circuit boards.		With 100% accuracy		
8. Demonstrates knowledge of simple electricity, circuits, volts, amps. (Knows about simple electricity, circuits, volts, amps.)		To supervisor's satisfactions		

COMPETENCY	RATING	STANDARDS	MET	COMMENTS
9. Understands significance of electrostatic discharge while performing electronic assembly (i.e, understands the need to wear "grounding bracelet.") (Understands the need to wear "grounding bracelet" while performing electronic assembly.)		To supervisor's satisfaction		
10. Etch-cuts circuit boards.		With 100% accuracy		
11. Identifies safety procedures.		With 100% accuracy		
12. Operates hand tools.		With 100% accuracy		
13. Uses microscope for assembly tasks.		With 100% accuracy		
14. Strips and tins wire.		With 100% accuracy		
15. Splices wires.		With 100% accuracy		
16. Demonstrates soldering techniques.		To supervisor's satisfaction		
17. Circuit Boards				
17.1 Reads circuit diagrams.		With 100% accuracy		
17.2 Installs components on printed circuit boards.		With 100% accuracy		
17.3 Transfers circuit layout to a printed circuit boards (via stenciling).		With 100% accuracy		
17.4 Makes continuity checks of printed circuit boards. (Checks circuit boards to make sure they work.)		With 100% accuracy		

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COMPETENCY	RATING	STANDARDS	MET	COMMENTS
18. Uses testing equipment operation		With 100% accuracy		
19. Performs quality control		With 100% accuracy		
20. Uses resistors/capacitors		With 100 and 80% accuracy		

IV. BASIC SKILLS
COMPETENCY ASSESSMENT/CERTIFICATION

COMPETENCY	RATING	STANDARDS	MET	COMMENTS
1. Reads and comprehends technical manuals. (Reads and understands technical manuals)		To supervisor's satisfaction		
2. Identifies terms used in electronic assembly. (Knows terms used in electronic assembly)		With 90% accuracy		
3. Matches terms with definitions associated with soldering. (Knows terms connected with soldering)		To supervisor's satisfaction		
4. Uses indexes, table of contents to locate information. (Finds information in manuals using indexes and table of contents)		To supervisor's satisfaction		
<u>Math</u>				
5. Measures volume, weights.		With 100% accuracy		
6. Performs linear measurement (wire length). (Measures length, e.g., wire length, board length, etc.)		With 100% accuracy		
7. Reads graduated scales.		With 100% accuracy		
8. Identifies fractions and decimal equivalents.		With 100% accuracy		
9. Adds and Subtracts fractions.		With 90% accuracy		
10. Multiplies and divides fractions.		With 90% accuracy		
11. Adds and subtracts decimals.		With 90% accuracy		

COMPETENCY	RATING	STANDARDS	MET	COMMENTS
12. Multiplies and divides decimals.		With 90% accuracy		
13. Knows percentages and ratios as applicable to various solder alloys. (Knows percentages and ratios of solder alloys)		To supervisor's satisfaction		
14. Calculates circuit values.		With 90% accuracy		

IV-A. LEARNING TO LEARN
COMPETENCY ASSESSMENT/CERTIFICATION

COMPETENCY	RATING	STANDARDS	MET	COMMENTS
1. Displays willingness to learn new tasks assigned. (Willing to try new tasks.)		Rating by supervisor (4 for certification)		
2. Demonstrates problem solving and decision making skills. (Can solve problems that come up on the job; Can make decisions about what to do on the job.)		To supervisor's satisfaction		
3. Willing to ask questions. (Asks questions when he/she needs help.)		Rating by supervisor (4 for certification)		
4. Asks appropriate questions and makes suggestions. (Makes suggestions to make the job, product, or services better.)		To supervisor's satisfaction		
5. Demonstrates willingness to learn through frequency/appropriateness of responses to new policies, programs, or information. (Willing to learn and is open to new company policies, programs, or information.)		To supervisor's satisfaction		
6. Takes the initiative to learn tasks. (Seeks out training or information to learn new job tasks.)		To supervisor's satisfaction		
7. Willing to participate in inservice/staff development activities. (Willing to take part in company in-service training programs.)		To supervisor's satisfaction		
8. Aware of outside learning activities/ resources/opportunities for job-related skill enhancement (i.e., Awareness). (Knows about training outside company that could help improve his/her job skills.)		Can name one or more		

COMPETENCY	RATING	STANDARDS	MET	COMMENTS
9. Initiates or investigates learning activities/resources/opportunities for job related skill enhancement, (i.e., Acknowledgment). (Seeks out training of inservice to improve his/her job skills.)		Can name one or more		
10. Participates in learning activities/resources/opportunit'es for job related skill enhancements (i.e., Action). (Signs up for and completes training or inservice that improves his/her job skills.)		Can name one or more		

Workplace Environmental Literacy Project
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Attachment P:

Variance Comparing Industry Standard to Participant Average

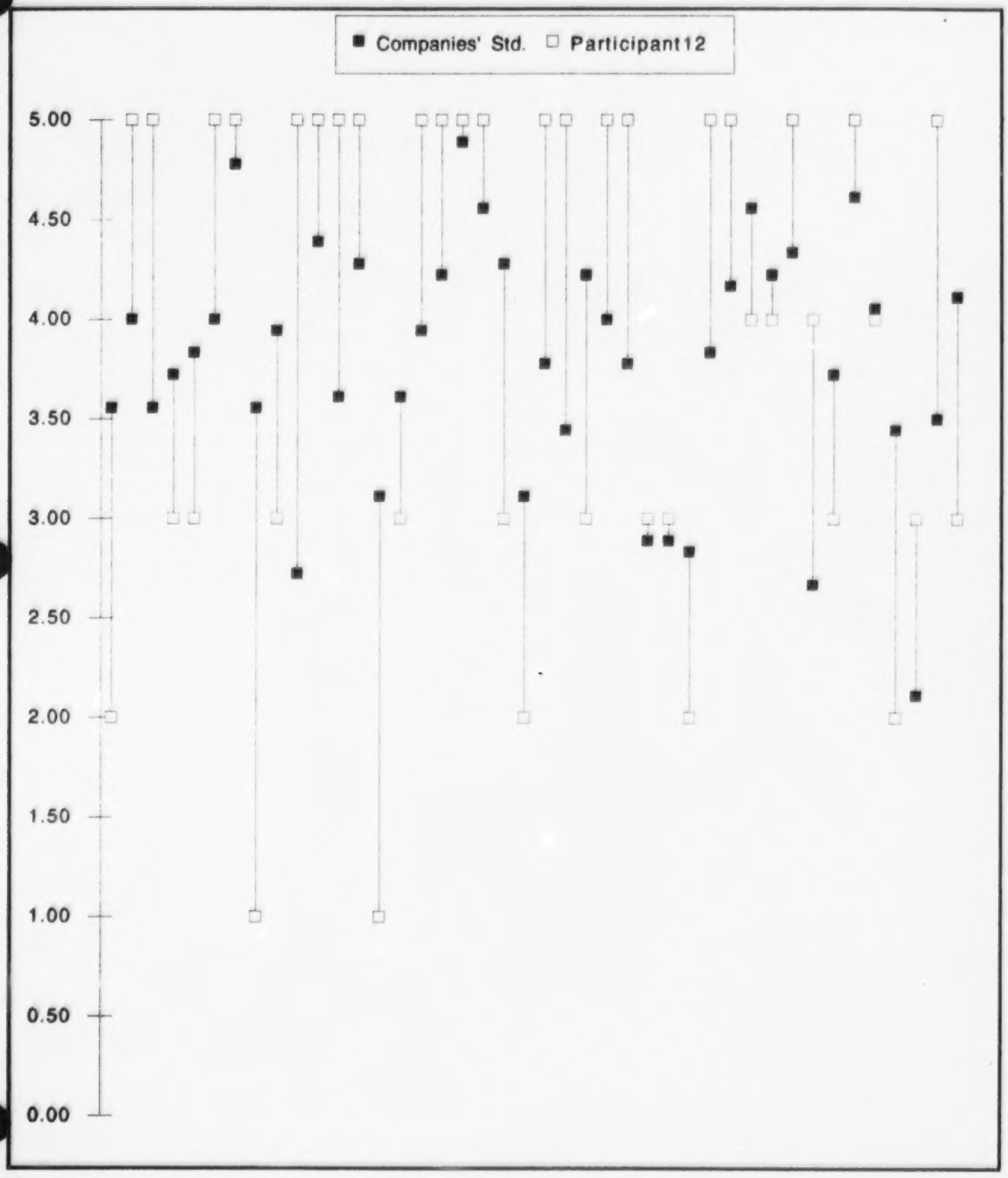
ANALYSIS: Of the 119 competencies responded to by Participant 12 during preassessment, the following results are noted:

Company Standard Exceeded Participant Average:
46 (39%)

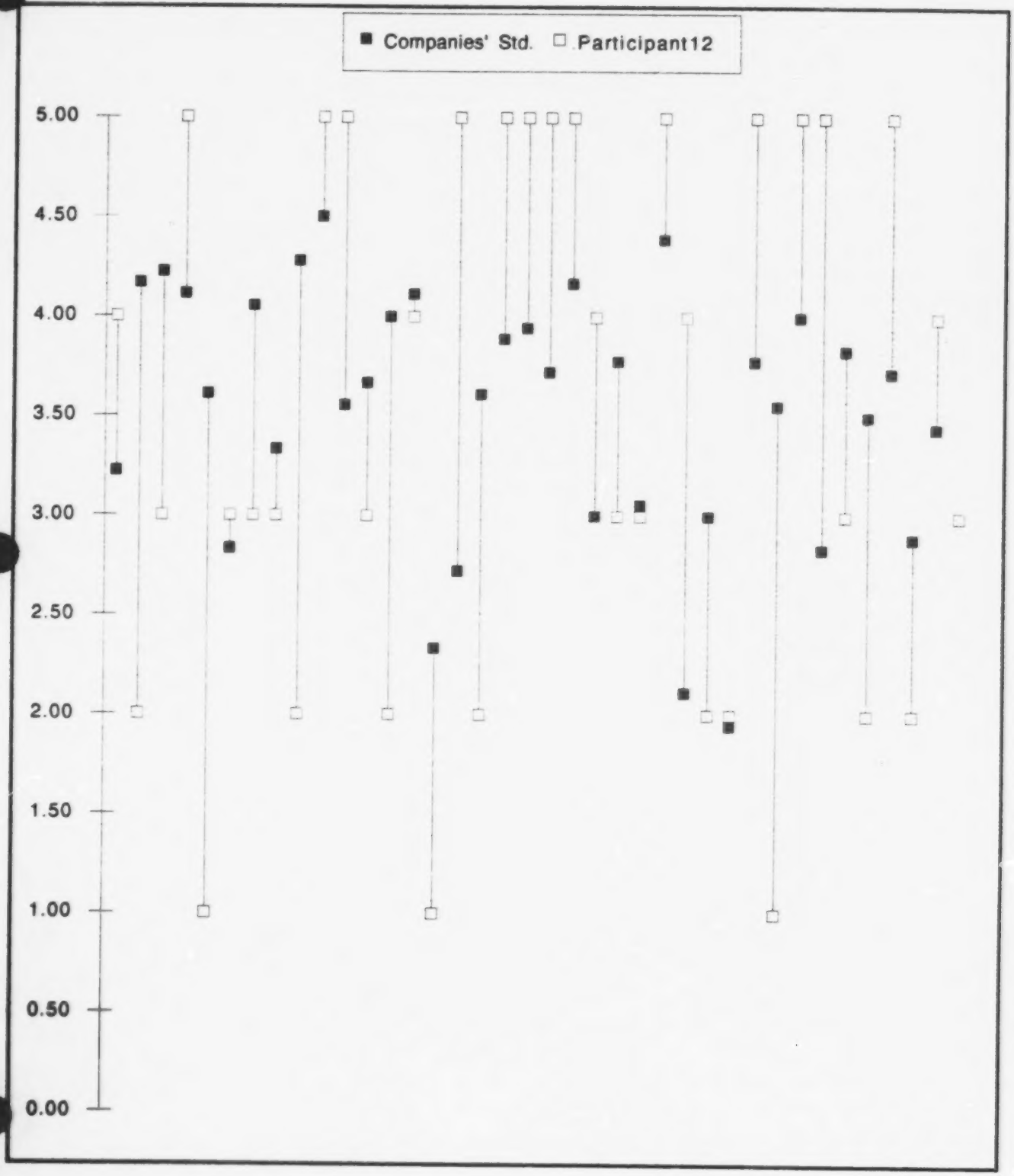
Participant Average Exceeded Company Standard:
67 (56%)

Company Standard Equaled Participant Average:
3 (5%)

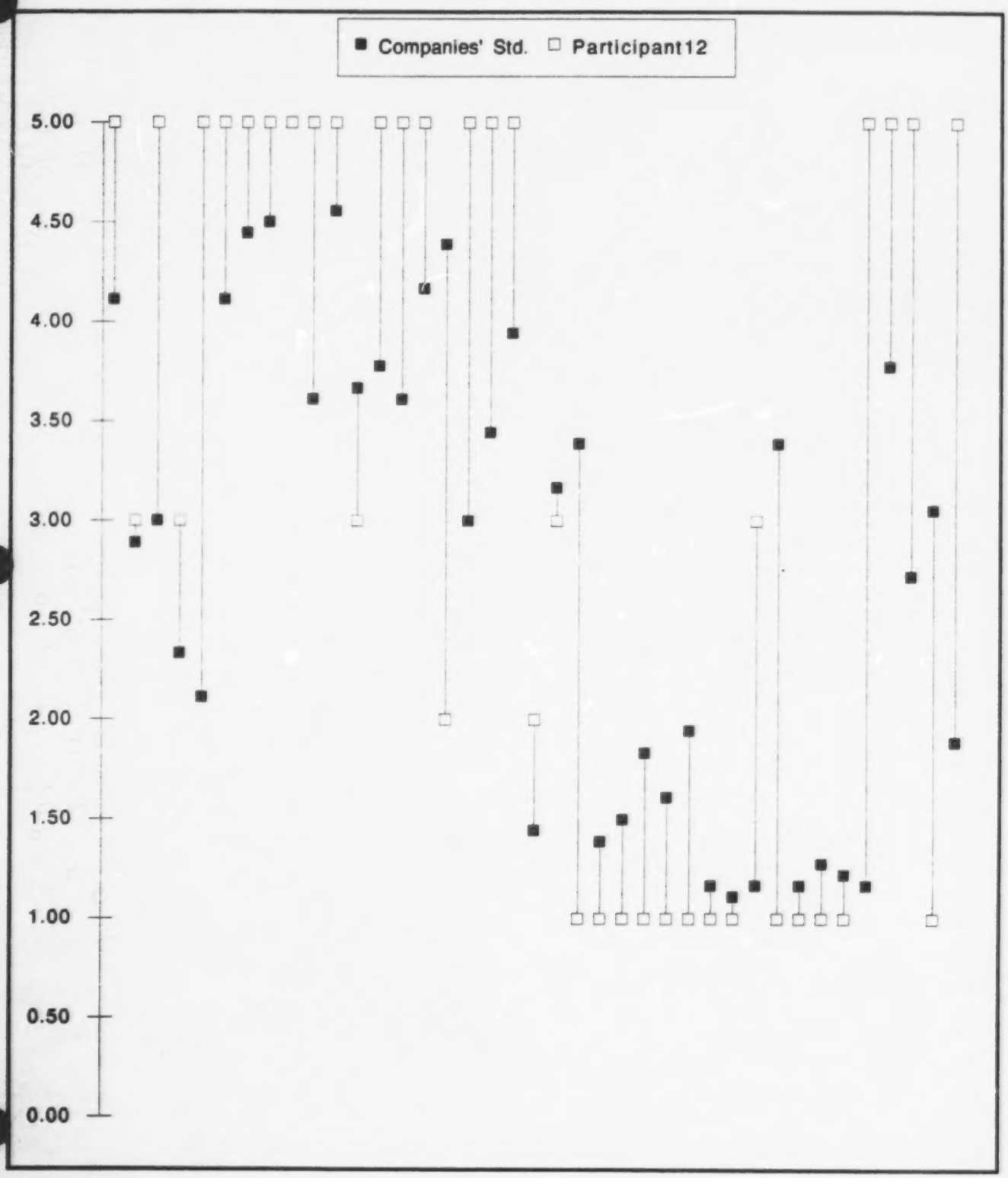
Participant 12: Responses vs. Industry Standard For Items 1-42



Participant 12: Responses vs. Industry Standard For Items 43-81



Participant 12: Responses vs. Industry Standard For Items 82-119



Workplace Environmental Literacy Project (WELP)

Attachment Q:

Project Evaluation

Rate the overall effectiveness of the program

Unsuccessful	Slightly Successful	Successful	Very Successful	Extremely Successful
			4	

Extent to which identified needs were met (1 - 5):

- The awareness of the expanded meaning of workplace environmental literacy was increased. 4
- JTPA participants gained a competitive advantage when seeking employment. *NA
- JTPA participants need to know employer specific, job literacy skills. 4
- JTPA participants needs skills specific to the company by which they are employed so as to understand, survive, and successfully function in the organizational environment. 4
- New linkages were developed with business and industry participants in the project. 3
- JTPA participants should be able to access, and be measured against, job specific competencies for local employers. 5
- The need to establish local, job specific, literacy competencies based on supervisor expectations in the workplace and the competencies of effective employees was met. 5
- A process was developed to access formal and informal, company specific, occupational generic, competencies using an 8 part definition of workplace environmental literacy. 5
- A competency-based pre/post assessment instrument exists which provides quantitative, measurable statements matching participants to company and job specific skills for entry level clerical positions. 4

The Eight Components of Successful Programs were met (1 - 5):

- Partnerships between government, business and education 3
- Effective identification and recruitment 4
- Assessment of aptitudes and skills *NA
- Competency based training related to work 4
- Encouraging environment and constructive feedback 3
- Strong capacity for job placement *NA
- Contact and troubleshooting during and after on-site training *NA
- Evaluation of long-term impacts and mechanisms for program adjustment 5

*NA indicates that although the capacity for meeting these needs or components is inherent in the outcomes of the current project, these activities were impacted by the projects inability, on the advise and at the direction of the project Advisory Committee, to develop and implement a compact document (see Attachment B).

Workplace Environmental Literacy Project
(WELP)

Attachment R:

Sample Data Derived from Project

ANALYSIS: Of the 119 competencies responded to by all participants during preassessment, the following results are noted:

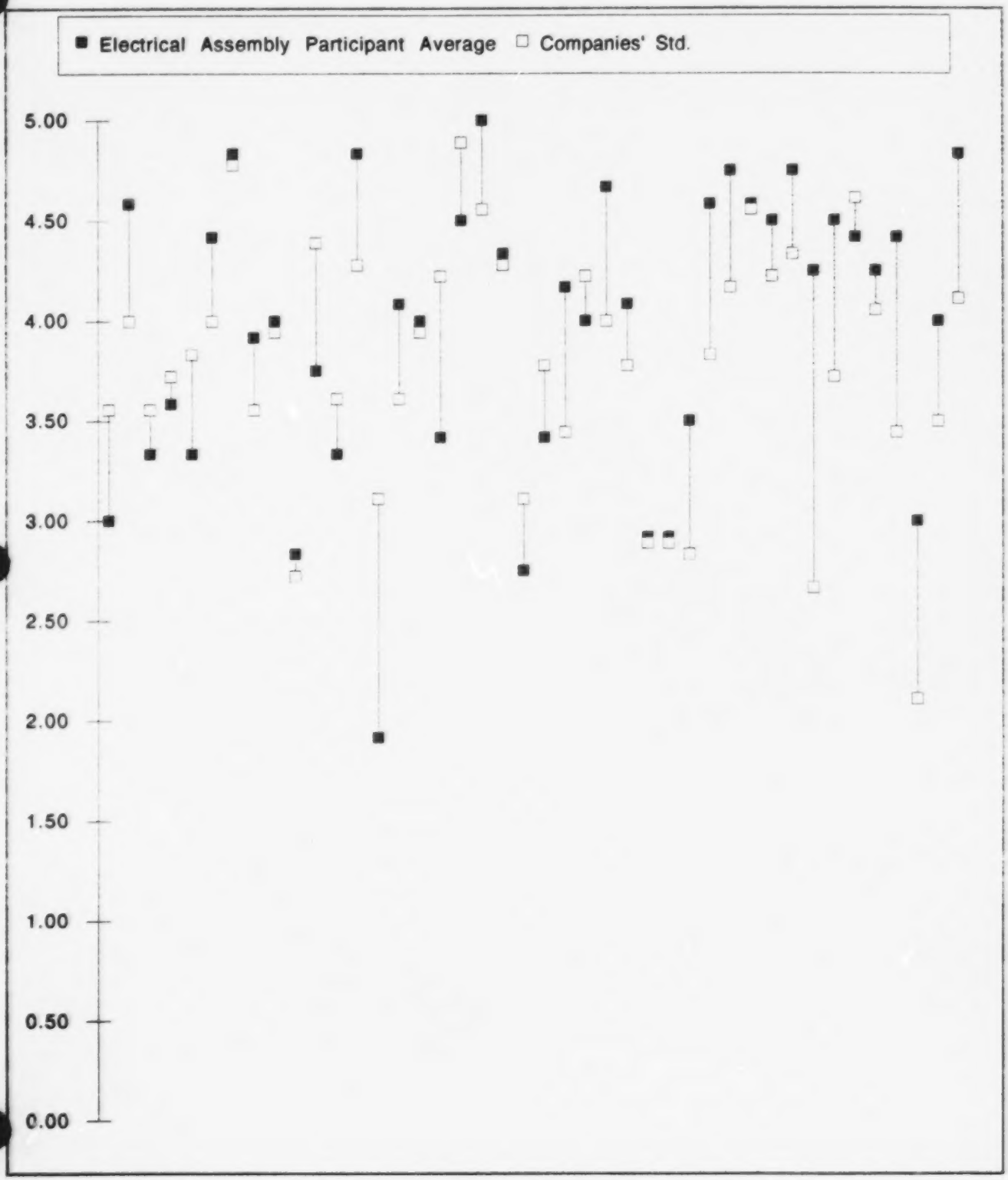
Company Standard Exceeded Participant Average: 43 (36%)

Participant Average Exceeded Company Standard: 65 (55%)

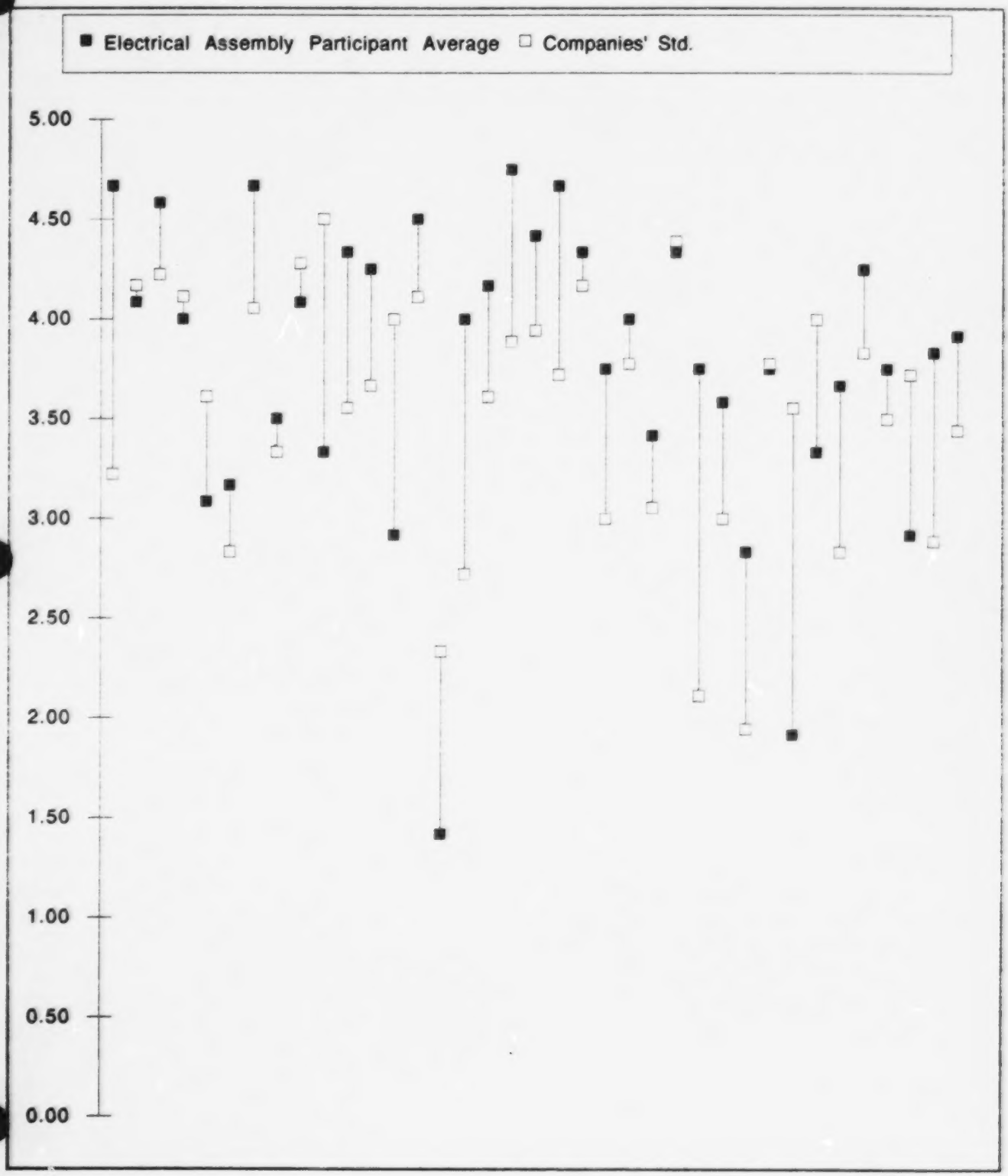
Company Standard Equaled Participant Average: 11 (9%)

These programattic results almost exactly equal those of Participant 12 who was randomly selected for analysis in Attachment P.

Variance Comparing Industry Standard to Participant Average: Items 1-42



Variance Comparing Industry Standar to Participant Average: Items 43-81



Variance Comparing Industry Standard to Participant Average: Items 82-119